Consumer support systems (CSS) are proposed as multilevel interorganizational systems to support business-consumer relationships. They utilize decision support technologies and adapt them to support consumer decision making. They also form interorganizational structures called “demand chains” to channel the flow of information between businesses and consumers. The proposed architecture suggests a new paradigm for business-consumer relationship, and may create a significantly more efficient marketplace due to highly structured information exchange between businesses and consumers.

Decision support systems are human-machine systems used widely to support organizational decision-making processes. They aid decision makers by extracting and filtering data from organizational
Dell's interaction with its customers is limited to the context of conducting a transaction. It does not exist before the transaction, and it ceases to exist soon after the transaction when the service agreements expire.

Recommendation systems attempt to alleviate the problems associated with CRM systems by collecting multi-vendor product information, by surveying the consumers about their product preferences, and by recording their past transactions related to those products [7]. But they also have a number of shortcomings. Their primary reliance on past transactions, and hence require a number of transactions before they can be useful. They survey the consumers for demographic information, but they do not collect information about consumers' intentions and tasks, and hence they often fail when consumers' intentions change. For example, Amazon's book recommendation system is unable to distinguish among one-time gift purchases, professional purchases made on behalf of others, sporadic special-occasion purchases, and personal purchases. Consequently, a gift purchase made for a child will lead to continuing recommendations for children's books irrespective of the consumer's current needs. Moreover, recommendation systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations.

Advising agents, which inform and educate consumers, as they would not be sufficient to inform and educate the suppliers and trading partners. Modern supply chains of businesses have more cooperative and more complex sets of technological and structural arrangements, which in turn lead to desirable product attributes, and finally one can search for the products exhibiting those attributes. A university professor, for example, probably needs to attend an annual conference in his area, which in turn lead to a geologist or a carpenter. The starting point for a market search may not be adequate to resolve them. Consumption may well be as complex a process as production, and may require the same degree of support from systems, technologies, and organizational structures as production does. Surveys and statistical analysis of past transactions may not be sufficient to understand and manage consumption, as they would not be sufficient to understand and manage production.

When the service agreements expire. CRM systems belong to their past transactions with other vendors. Dell's consumer information about their future needs and credible comparisons to the products of other competitors fit their needs. However, Dell is unable to provide actions and helps customers configure computers to Dell's interaction with its customers is limited to the context of conducting a transaction. It does not exist before the transaction, and it ceases to exist soon after the transaction when the service agreements expire.

Recommendation systems attempt to alleviate the problems associated with CRM systems by collecting multi-vendor product information, by surveying the consumers about their product preferences, and by recording their past transactions related to those products [7]. But they also have a number of shortcomings. Their primary reliance on past transactions, and hence require a number of transactions before they can be useful. They survey the consumers for demographic information, but they do not collect information about consumers' intentions and tasks, and hence they often fail when consumers' intentions change. For example, Amazon's book recommendation system is unable to distinguish among one-time gift purchases, professional purchases made on behalf of others, sporadic special-occasion purchases, and personal purchases. Consequently, a gift purchase made for a child will lead to continuing recommendations for children's books irrespective of the consumer's current needs. Moreover, recommendation systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations.

Advising agents, which inform and educate consumers, as they would not be sufficient to inform and educate the suppliers and trading partners. Modern supply chains of businesses have more cooperative and more complex sets of technological and structural arrangements, which in turn lead to desirable product attributes, and finally one can search for the products exhibiting those attributes. A university professor, for example, probably needs to attend an annual conference in his area, which in turn lead to a geologist or a carpenter. The starting point for a market search may not be adequate to resolve them. Consumption may well be as complex a process as production, and may require the same degree of support from systems, technologies, and organizational structures as production does. Surveys and statistical analysis of past transactions may not be sufficient to understand and manage consumption, as they would not be sufficient to understand and manage production.

When the service agreements expire. CRM systems belong to their past transactions with other vendors. Dell's consumer information about their future needs and credible comparisons to the products of other competitors fit their needs. However, Dell is unable to provide actions and helps customers configure computers to Dell's interaction with its customers is limited to the context of conducting a transaction. It does not exist before the transaction, and it ceases to exist soon after the transaction when the service agreements expire.

Recommendation systems attempt to alleviate the problems associated with CRM systems by collecting multi-vendor product information, by surveying the consumers about their product preferences, and by recording their past transactions related to those products [7]. But they also have a number of shortcomings. Their primary reliance on past transactions, and hence require a number of transactions before they can be useful. They survey the consumers for demographic information, but they do not collect information about consumers' intentions and tasks, and hence they often fail when consumers' intentions change. For example, Amazon's book recommendation system is unable to distinguish among one-time gift purchases, professional purchases made on behalf of others, sporadic special-occasion purchases, and personal purchases. Consequently, a gift purchase made for a child will lead to continuing recommendations for children's books irrespective of the consumer's current needs. Moreover, recommendation systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations.

Advising agents, which inform and educate consumers, as they would not be sufficient to inform and educate the suppliers and trading partners. Modern supply chains of businesses have more cooperative and more complex sets of technological and structural arrangements, which in turn lead to desirable product attributes, and finally one can search for the products exhibiting those attributes. A university professor, for example, probably needs to attend an annual conference in his area, which in turn lead to a geologist or a carpenter. The starting point for a market search may not be adequate to resolve them. Consumption may well be as complex a process as production, and may require the same degree of support from systems, technologies, and organizational structures as production does. Surveys and statistical analysis of past transactions may not be sufficient to understand and manage consumption, as they would not be sufficient to understand and manage production.

When the service agreements expire. CRM systems belong to their past transactions with other vendors. Dell's consumer information about their future needs and credible comparisons to the products of other competitors fit their needs. However, Dell is unable to provide actions and helps customers configure computers to Dell's interaction with its customers is limited to the context of conducting a transaction. It does not exist before the transaction, and it ceases to exist soon after the transaction when the service agreements expire.

Recommendation systems attempt to alleviate the problems associated with CRM systems by collecting multi-vendor product information, by surveying the consumers about their product preferences, and by recording their past transactions related to those products [7]. But they also have a number of shortcomings. Their primary reliance on past transactions, and hence require a number of transactions before they can be useful. They survey the consumers for demographic information, but they do not collect information about consumers' intentions and tasks, and hence they often fail when consumers' intentions change. For example, Amazon's book recommendation system is unable to distinguish among one-time gift purchases, professional purchases made on behalf of others, sporadic special-occasion purchases, and personal purchases. Consequently, a gift purchase made for a child will lead to continuing recommendations for children's books irrespective of the consumer's current needs. Moreover, recommendation systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations.

Advising agents, which inform and educate consumers, as they would not be sufficient to inform and educate the suppliers and trading partners. Modern supply chains of businesses have more cooperative and more complex sets of technological and structural arrangements, which in turn lead to desirable product attributes, and finally one can search for the products exhibiting those attributes. A university professor, for example, probably needs to attend an annual conference in his area, which in turn lead to a geologist or a carpenter. The starting point for a market search may not be adequate to resolve them. Consumption may well be as complex a process as production, and may require the same degree of support from systems, technologies, and organizational structures as production does. Surveys and statistical analysis of past transactions may not be sufficient to understand and manage consumption, as they would not be sufficient to understand and manage production.

When the service agreements expire. CRM systems belong to their past transactions with other vendors. Dell's consumer information about their future needs and credible comparisons to the products of other competitors fit their needs. However, Dell is unable to provide actions and helps customers configure computers to Dell's interaction with its customers is limited to the context of conducting a transaction. It does not exist before the transaction, and it ceases to exist soon after the transaction when the service agreements expire.
Decision making is very limited. CRM systems belong to computer manufacturers, and unable to collect detailed information, and provide comparisons and trade-offs among dozens of products at a time [6]. However, Dell is unable to provide support technology is commonly available to organizational decision makers, yet rarely deployed to support consumer decisions [2, 6]. Decision support systems help customers configure computers to fit their needs. However, there are also both technical and organizational hurdles to the deployment of this technology for consumers, explaining the heretofore failure of the markets to develop such comprehensive consumer support systems.

Instead of comprehensive support systems, consumers are currently served by three distinct technologies, but each has serious shortcomings:

- WPFs and e-mail provide recommendations for children’s books irrespective of the consumer’s current needs. Moreover, recommender systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations. The Amazon’s book recommendation system is unable to distinguish among one-time gift purchases, professional purchases made on behalf of others, sporadic special-occasion purchases, and personal purchases. Consequently, a gift purchase made for a child will lead to continuing recommendations for children’s books irrespective of the consumer’s current needs. Moreover, recommendation systems fail to explain their recommendations, and reveal the reasons for their choices except in terms of statistical correlations.

- Intelligent agents alert consumers to new product promotions, and educate consumers, as they would not be sufficient to inform and educate the suppliers and trading partners. Modern supply chains of businesses have more cooperative relationships with consumers, as a supply chain is necessary to understand and manage production, as they would not be sufficient to understand and manage production. A demand chain may be necessary to manage the downstream relationship with consumers, as a supply chain is necessary to manage the upstream relationship with suppliers.

Requirements for a comprehensive CSS

An effective mechanism is needed to deliver information to consumers. The information must be structured and easily searchable, not just a collection of Web pages or product catalogs; it must be comprehensive and comparative, not limited to a single vendor; it needs to be objective and reliable, not advertisement; and it needs to be customizable to each consumer, not mass distribution. Dell Computers provides one of the most effective support systems to its customers, with detailed side-by-side comparisons of its computers, but it fails most of these criteria. It fails to provide comparisons to the products of other vendors, such as HP and Gateway; it fails to compare products from one class to another, such as desktops versus notebooks; and it fails to provide an effective search mechanism through the large number of possible specifications and preferences of specific consumers. Search agents, negotiation agents, and advice agents all perform different parts of the consumer support task, and they often require customized software to fit the needs of specific consumers. Finally, there is no mechanism to systematically capture and utilize past experiences, especially the experiences of other consumers, through a learning process. Merely recording and analyzing past transactions may not be sufficient to accomplish the task if individual agents do not have access to other consumers’ transactions. Some of these problems are the result of fundamental shortcomings of the currently available technologies of data management, artificial intelligence, and statistical analysis, and purely technological solutions may not be adequate to resolve them. Consumer behavior may well be as complex a process as production, and may require the same degree of support from systems, technologies, and organizational structures as production does. Surveys and statistical analysis of past transactions may not be sufficient to understand and manage consumption, as they would not be sufficient to understand and manage production.

Advertising and promotion campaigns of businesses that inform and educate consumers, as a supply chain is necessary to understand and manage production, as they would not be sufficient to understand and manage production. A demand chain may be necessary to manage the downstream relationship with consumers, as a supply chain is necessary to manage the upstream relationship with suppliers.

An architecture of technology and organization

Any effort to incorporate consumers into business supply chains would require organizing consumers into more abstract entities similar to a business organization. These entities must be supported with information systems, which in turn could be linked
to the systems of other supply chain members, cre-
ativating the cooperative system-to-system linkages that char-
terize demand chains. We will refer to these extensions to the supply chains involving con-
sumer organizations as demand chains, and refer to
the systems built to support these chains as CSS.
CSS require three distinct sets of information: prod-
A software system that processes information
and feeds it to decision makers. A similar human-system
chain necessary to aid consumer decisions.

Table 2. The three level demand chain including the two new intermediaries
and the information flows along the chain for the specific example
of getting a hotel reservation to attend a conference.

<table>
<thead>
<tr>
<th>Intermediaries</th>
<th>Consumers</th>
<th>Communities</th>
<th>Task Services</th>
<th>Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Smith</td>
<td>Technology Professor</td>
<td>ACM Conference on Electronic Commerce</td>
<td>Hilton Hotel Pittsburgh</td>
<td></td>
</tr>
<tr>
<td>Consumer Information</td>
<td>Community enrollment</td>
<td>relevant tasks</td>
<td>needed products</td>
<td>product users</td>
</tr>
<tr>
<td>Product Information</td>
<td>Task specialists</td>
<td>Product recommendations</td>
<td>Task-related services</td>
<td>Customer support</td>
</tr>
</tbody>
</table>

The tasks that consumers perform can be used to
classify tasks. Two new intermediaries, task specialist,
and task community, are needed to link consumers
to products. Task specialists are a new breed of intermedi-
aries, and Web Services is the technology that
can be used to support such intermediaries by automat-
ing the posting, collection, and aggregation of
dynamic and heterogeneous data. Existing task
enabling technology is known as Web Services and it
allows businesses to post their product and process
data dynamically over the Web, which can be col-
clected dynamically by other businesses such as task
specialists, and aggregated and processed directly to
serve various tasks [4, 9, 10].

Task specialists are a new breed of intermediaries,
and Web Services is the technology that encourages
the development of such intermediaries by automat-
ing the posting, collection, and aggregation of
dynamic and heterogeneous data. Existing task
intermediary needs to be built into a hierarchy of
communities in terms of their personal characteristics, and each community
collectively relates to a set of relevant and important tasks and exchanges information with those tasks.

A community can be an independent business, or
a cooperative that serves a distinct group of consumers
by identifying the relevant tasks, classifying, customiz-
ing, and evaluating them, and presenting them to their
members. It also collects extensive consumer informa-
tion from its members, both to characterize and clas-
sify its membership, and also to customize tasks for each
sub-class. A community of technology professors, for
example, would be a subclass of the community of professors; it
would inherit information about tasks relevant to all professors from its
super-class of all professors; but it would also identify tasks relevant specifically to technology profes-
sors, and even further classify them with respect to academic
specialties of its members.

Communities are the last
intermediary in the demand
chain, linking consumers to task
services, and eventually to prod-
ucts. As such, they are
promising as they are, commu-
nities can only be effective in the
case of a complex demand chain deploying a vari-
ety of technologies and organizational structures. On
the other hand, they require access to extensive
consumer information that must be isolated and pro-
tected for privacy, confidentiality, and integrity. That kind of bi-directional information flow with extensive pro-
cessing while protecting the privacy of the parties requires extensive intermediation as described.

The three-level demand chain is now ranked and evaluated and recommended to the com-
nunities. Traditionally, communities are
aggregated, and detailed individual infor-
mal interaction is protected.

Product information flows in the opposite direc-
tion: from vendors to task services to be aggregated
into packages; from tasks to communities to be ranked and evaluated and recommended to the com-

Table 1. Summary of the capabilities and shortcomings of three
common approaches to consumer support.

<table>
<thead>
<tr>
<th>CRM</th>
<th>Recommendation Systems</th>
<th>Intelligent Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-vendor product information</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Multi-consumer transaction history</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Detailed product information</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Detailed consumer preferences</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 2. The three-level demand chain including the two new intermediaries
and the information flows along the chain for the specific example
of getting a hotel reservation to attend a conference.
The tasks that consumers perform can be used to form new intermediaries to link consumers to products. Tasks can play a significant intermediary role both to summarize and aggregate extensive product information, and also to filter and reduce the information that should be available dynamically, and to isolate consumers from vendors so the consumer information can be kept private, and disclosed only to the extent they relate to a task. Tasks can also be used to reduce the information load on consumers since not every product has to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

If tasks are to be formalized and serve as intermediaries between products and consumers, these task professionals must be organized to collect task information that should be available dynamically, and to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

Table 1. Summary of the capabilities and shortcomings of three common approaches to consumer support.

<table>
<thead>
<tr>
<th></th>
<th>CRM</th>
<th>Recommendation Systems</th>
<th>Intelligent Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-vendor product information</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Multi-consumer transaction history</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
</tr>
<tr>
<td>Detailed product information</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Detailed consumer preferences</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

To formalize tasks and to serve as intermediaries between products and consumers, these task professionals must be organized to collect task information that should be available dynamically, and to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

If tasks are to be formalized and serve as intermediaries between products and consumers, these task professionals must be organized to collect task information that should be available dynamically, and to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

The tasks that consumers perform can be used to form new intermediaries to link consumers to products. Tasks can play a significant intermediary role both to summarize and aggregate extensive product information, and also to filter and reduce the information that should be available dynamically, and to isolate consumers from vendors so the consumer information can be kept private, and disclosed only to the extent they relate to a task. Tasks can also be used to reduce the information load on consumers since not every product has to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

If tasks are to be formalized and serve as intermediaries between products and consumers, these task professionals must be organized to collect task information that should be available dynamically, and to be considered by every consumer, but tasks filter and aggregate product information. However, tasks are independent of consumers and products, and task information is specialized and possessed by professionals and craftsmen who practice the tasks.

In Table 2, a three-level demand chain including two new intermediaries and Web Services is shown. The three-level demand chain includes the two new intermediaries and Web Services that are, respectively, task services, and vendors. Task services are the new breed of intermediaries, and Web Services is the technology that encourages the development of such intermediaries by automating the processing, collection, and aggregation of dynamic and heterogeneous data. Existing task intermediaries largely operate with manually collected data, and have difficulty maintaining their knowledge bases. The new technology of Web Services is likely to encourage the expansion of such services. Task information is closer to the consumers’ world than product information, and it is similarly valued by them. That kind of information should be available dynamically, and on the other hand, they require access to extensive consumer information that must be isolated and protected for privacy and competitive reasons. That kind of bidirectional information flow, which is required to enable task intermediaries to solve the problem of consumers with a task search problem. Tasks are complex entities and searching for a task still requires a significant effort, especially because consumers may not know task attributes, or even be aware of the existence of relevant tasks. A university professor may not know what attributes make a conference relevant to him, or may not even know that attending annual conferences is a relevant and useful task for university professors. Moreover, tasks must often be customized for individual consumers, and task specialists would find it difficult to customize tasks to meet individual characteristics.

The technology critical to organizing consumers and linking them to tasks is “object clustering and typing,” and the necessary new intermediaries are “consumer communities” [1, 5]. Consumers are organized into a hierarchy of communities in terms of their personal characteristics, and each community is organized into a hierarchy of task specialists and exchanges information with those tasks.

A community can be an independent business, or a cooperative that serves a distinct group of consumers by identifying the relevant tasks, classifying, customizing, and evaluating them, and presenting them to its members. It also collects extensive consumer information from its members, both to characterize and classify its members, and to customize tasks for each subclass. A common approach to technology professors, for example, would be a subclass of the community of professors; it would inherit information about tasks relevant to all professors from its super-class of all professors; but it would also identify tasks relevant specifically to technology professors, and even further classify them with respect to academic specialties of its members.

Communities are the last intermediary in the demand chain, linking consumers to task services, and eventually to product vendors. Consumers in such communities naturally and simply express their preferences in terms of the attributes of products that they find relevant. That kind of information should be available dynamically, and on the other hand, they require access to extensive consumer information that must be isolated and protected for privacy and competitive reasons. That kind of bidirectional information flow, which is required to enable task intermediaries to solve the problem of consumers with a task search problem. Tasks are complex entities and searching for a task still requires a significant effort, especially because consumers may not know task attributes, or even be aware of the existence of relevant tasks. A university professor may not know what attributes make a conference relevant to him, or may not even know that attending annual conferences is a relevant and useful task for university professors. Moreover, tasks must often be customized for individual consumers, and task specialists would find it difficult to customize tasks to meet individual characteristics.

The technology critical to organizing consumers and linking them to tasks is “object clustering and typing,” and the necessary new intermediaries are “consumer communities” [1, 5]. Consumers are organized into a hierarchy of communities in terms of their personal characteristics, and each community is organized into a hierarchy of task specialists and exchanges information with those tasks.

A community can be an independent business, or a cooperative that serves a distinct group of consumers by identifying the relevant tasks, classifying, customizing, and evaluating them, and presenting them to its members. It also collects extensive consumer information from its members, both to characterize and classify its members, and to customize tasks for each subclass. A common approach to technology professors, for example, would be a subclass of the community of professors; it would inherit information about tasks relevant to all professors from its super-class of all professors; but it would also identify tasks relevant specifically to technology professors, and even further classify them with respect to academic specialties of its members.

Communities are the last intermediary in the demand chain, linking consumers to task services, and eventually to product vendors. Consumers in such communities naturally and simply express their preferences in terms of the attributes of products that they find relevant. That kind of information should be available dynamically, and on the other hand, they require access to extensive consumer information that must be isolated and protected for privacy and competitive reasons. That kind of bidirectional information flow, which is required to enable task intermediaries to solve the problem of consumers with a task search problem. Tasks are complex entities and searching for a task still requires a significant effort, especially because consumers may not know task attributes, or even be aware of the existence of relevant tasks. A university professor may not know what attributes make a conference relevant to him, or may not even know that attending annual conferences is a relevant and useful task for university professors. Moreover, tasks must often be customized for individual consumers, and task specialists would find it difficult to customize tasks to meet individual characteristics.

The technology critical to organizing consumers and linking them to tasks is “object clustering and typing,” and the necessary new intermediaries are “consumer communities” [1, 5]. Consumers are organized into a hierarchy of communities in terms of their personal characteristics, and each community is organized into a hierarchy of task specialists and exchanges information with those tasks.

A community can be an independent business, or a cooperative that serves a distinct group of consumers by identifying the relevant tasks, classifying, customizing, and evaluating them, and presenting them to its members. It also collects extensive consumer information from its members, both to characterize and classify its members, and to customize tasks for each subclass. A common approach to technology professors, for example, would be a subclass of the community of professors; it would inherit information about tasks relevant to all professors from its super-class of all professors; but it would also identify tasks relevant specifically to technology professors, and even further classify them with respect to academic specialties of its members.

Communities are the last intermediary in the demand chain, linking consumers to task services, and eventually to product vendors. Consumers in such communities naturally and simply express their preferences in terms of the attributes of products that they find relevant. That kind of information should be available dynamically, and on the other hand, they require access to extensive consumer information that must be isolated and protected for privacy and competitive reasons. That kind of bidirectional information flow, which is required to enable task intermediaries to solve the problem of consumers with a task search problem. Tasks are complex entities and searching for a task still requires a significant effort, especially because consumers may not know task attributes, or even be aware of the existence of relevant tasks. A university professor may not know what attributes make a conference relevant to him, or may not even know that attending annual conferences is a relevant and useful task for university professors. Moreover, tasks must often be customized for individual consumers, and task specialists would find it difficult to customize tasks to meet individual characteristics.

The technology critical to organizing consumers and linking them to tasks is “object clustering and typing,” and the necessary new intermediaries are “consumer communities” [1, 5]. Consumers are organized into a hierarchy of communities in terms of their personal characteristics, and each community is organized into a hierarchy of task specialists and exchanges information with those tasks.

A community can be an independent business, or a cooperative that serves a distinct group of consumers by identifying the relevant tasks, classifying, customizing, and evaluating them, and presenting them to its members. It also collects extensive consumer information from its members, both to characterize and classify its members, and to customize tasks for each subclass. A common approach to technology professors, for example, would be a subclass of the community of professors; it would inherit information about tasks relevant to all professors from its super-class of all professors; but it would also identify tasks relevant specifically to technology professors, and even further classify them with respect to academic specialties of its members.
Community members. At each step, the detailed product information is processed and aggregated, and the consumer is protected from the minute technical details of product attributes. In this environment, consumers think in terms of their membership in various communities based on their personal characteristics; communities think in terms of tasks that have to be performed by their members as a result of their membership in those communities; task services think in terms of the products necessary to perform those tasks and selecting the most appropriate products. At each step, the information is processed and analyzed with the help of appropriate technologies. Neither technologies nor the organization of intermediaries alone is likely to be sufficient for success. This process is likely to significantly change the current marketing paradigm that focuses most attention on characterizing consumers by using their past transactions. When consumer characteristics are readily available, and volunteered by consumer communities, the dominant marketing paradigm is reversed, and focuses on identifying relevant transactions from consumer characteristics. Intermediation by task specialists facilitates this new paradigm as it serves the dual purpose of channeling product information to the right communities and protecting the consumer communities from flooding with irrelevant product information. They not only protect consumers from irrelevant information, but also serve businesses by channeling their products to the right consumers. Customer relationship in this marketplace would resemble the business-to-business relationships of supply chain members, rather than transaction data collection, statistical data analysis, and direct marketing and mass media campaigns prevalent today.

Much of the literature on supply chains would be immediately relevant to demand chains, and the combination of supply and demand chains would stimulate a comprehensive research field combining and cross fertilizing the supply chain field with the customer relationship field.

References


Levent V. Orman (orman@johnson.cornell.edu) is a professor of management information systems at Cornell University, Ithaca, NY.