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Abstract:

Social commerce is a form of commerce mediated by social media and is converging both online and offline environments. As a relatively new phenomenon, social commerce has evolved quickly in practice, yet has gained little attention in the IS discipline. With its pervasiveness in businesses and people's lives, social commerce presents ample research opportunities that can have both theoretical and practical significance and implications. This article aims to capture researchers' attention by describing the characteristics of social commerce and its potential future directions. We trace the evolutionary patterns of social commerce chronologically, based on trade articles and academic publications from 2005 to 2011. A framework that combines people, management, technology, and information dimensions is used to provide a systematic analysis of social commerce development. Our examination shows that since 2005, the year the term *social commerce* was incepted, assumptions and understanding of *people* in social commerce move from a simple and general description of human social nature to a rich exploration with different angles from social psychology, social heuristics, national culture, and economic situations. On the *management* dimension, business strategies and models evolve from the short-tail to long-tail thinking, with invented concepts such as branded social networks/communities, niche social networks/communities, niche brands, co-creating, team-buying, and multichannel social networks. *Technologically*, IT platforms and capabilities for social commerce evolve from blogs, to social networking sites, to media-sharing sites, and to smartphones. While Facebook becomes a profit-generating platform, creating the notion of f-commerce, Google and Twitter become strong competitors with great potentials. *Information* in social commerce evolves from peer-generated, to community-generated (crowdsourcing), to consumer and marketer co-created, and to global crowdsourced. Our examination identifies various conceptualizations, terminologies, views, and perspectives about social commerce and its relation to other well-known concepts such as e-commerce. In light of the evolution of social commerce, we provide possible future directions for research and practice.

Keywords: social commerce, social shopping, evolution, mediation, mediatization, information model, f-commerce, g-commerce, t-commerce, crowdsourcing, Tuangou, Groupon

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I. INTRODUCTION

Along with the popularity and commercial success of social networking sites and other forms of social media, the term *social commerce* was conceived in 2005, representing an emerging (and evolving) phenomenon [Rubel, 2005; Beisel, 2006; Stephen and Toubia, 2010]. For discussion purposes, here we briefly define *social commerce* as a form of commerce that is mediated by social media and is converging both online and offline environments. Social commerce involves using social media that support social interactions and user contributions to assist activities in the buying and selling of products and services online and offline. It represents potential merchandizing opportunities that combine shopping and social networking activities through social media. Benefiting from the advantages of interactive information technology infrastructure, social commerce is regarded as a new category of e-commerce, or the birth of a "referral economy" [Harkin, 2007].

Most discussions about social commerce have been in trade articles, blog posts, industry reports or publications by practitioners. There are only a handful of academic studies that touched on some aspects of social commerce rather than focused on social commerce as a phenomenon. Collectively, these discussions have provided bits and bytes of forecasts, speculations, experiences, and status reports. Thus, our understanding of social commerce is scattered and limited, and at times can be biased by certain views or perspectives. Yet, social commerce, as an emerging phenomenon, provides ample opportunities for scholars to investigate and revalidate various issues related to the interplay among people, management, technology and information, all of which fall within the IS disciplinary boundary. Such investigations not only contribute to our theoretical understanding but also provide guidance and prescriptions to successful social commerce practice.

This article provides a first step to social commerce research. In particular, we provide a systematic examination of the evolution of social commerce to illustrate both its rich breadth and its longitudinal characteristics. This examination is structured by a framework with four dimensions: people, management, technology, and information. By providing such a systematic examination, we outline the landscape of social commerce practice, identify research opportunities and implications, and hope to inspire more research efforts and outcomes in this emerging area.

The rest of the article is organized as the following. The next section introduces a multi-facet framework that combines several important elements. This is followed by the section on A Historical Recount that takes readers back to each year since 2005 and recounts social commerce along the four dimensions in the framework. The two sections after that summarize the main characteristics of social commerce and highlight alternative views and positions regarding social commerce. Finally, we point out possible future directions for research and practice.

II. A FRAMEWORK OF PEOPLE, MANAGEMENT, TECHNOLOGY, AND INFORMATION

In understanding several related disciplines that are concerned with concepts and phenomena of information with a social purpose, Zhang and Benjamin [2007] construct a conceptual framework, named the *information model* or *I-model.* This model can be used to illustrate the similarities and differences among several related disciplines to examine and promote curricula and educational programs, to prescribe and evaluate research programs and studies, and to reexamine historical cases [Liu, Benjamin and Zhang, 2007]. The I-model primarily consists of four fundamental components that are the main objects of studies in several established reference disciplines: information, technology, people, and organization/society. According to Zhang and Benjamin, a component of a scientific field is the object of scientific inquiry. A field can have many components; some are more basic and fundamental, others are less so. A fundamental component of a scientific field is essential, exists independent of other components, and is concerned with the core of the field. *Information* is an object of study in library science and information science even before information and communication technologies were invented. *Technology* is the core of computer science and engineering. *People* are what psychologies, sociologists, and cultural anthropologists are interested in. Finally, *organization* is the interest of many social sciences [Zhang and Benjamin, 2007]. Information-related phenomena within various contexts and domains can be illustrated by the I-model in two essential senses: (1) the phenomena can be examined or investigated along each of the four fundamental dimensions, and (2) these four components can constantly interact and integrate with each other to form a dynamic equilibrium [Zhang and Benjamin, 2007]. Figure 1 depicts the essentials of the I-model.

Figure 1. The I-Model (from Zhang and Benjamin, 2007)
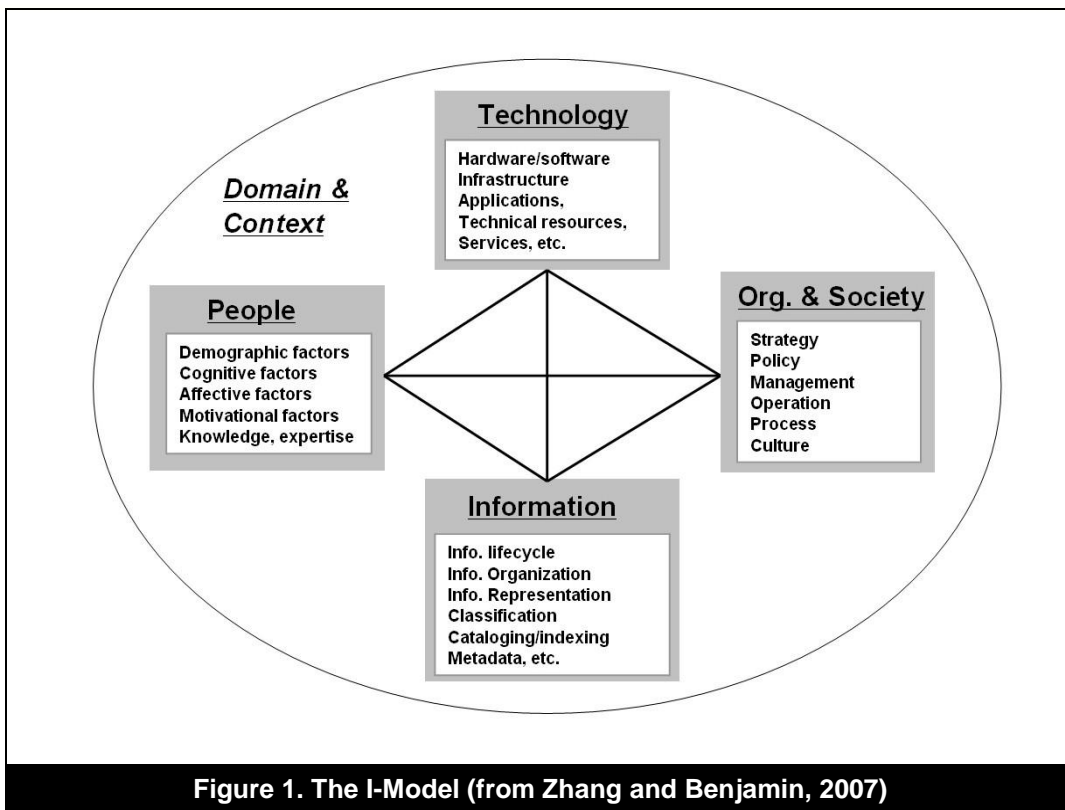
Social commerce as an area of research is concerned with information-related phenomena. In fact, social commerce is concerned with all four fundamental components in the I-model. *People* are the fundamental drive and reason for socialization, commerce, technological advancement, and information creation and use. According to Zhang and Benjamin, people include those who are users of ICT, who are designers and inventors of ICT, and who manage and influence ICT use behaviors in various contexts [Zhang and Benjamin, 2007]. In social commerce, people may be individual consumers and sellers, small or large groups of people, or communities who are users and beneficiaries of the technologies.

The *organization and society* component of the I-model is concerned with policies, strategies, management, operation, processes, structures, and cultures [Zhang and Benjamin, 2007]. These issues are under the general notion of "management" and are very pertinent to the social commerce territory. As with any form of commerce or business, social commerce is directly or indirectly about eventually making profit or generating benefit. It is thus important to consider business strategies, business models, policies, processes, and opportunities for retailers and other entities that are perceived to benefit or profit from social commerce. To make these issues more salient and avoid potential confusion, we use the term *management* to represent this component in our article.

On the *technology* component of the I-model, one is concerned with objects such as hardware, software, infrastructure, platforms, applications, resources, services, and the like. Technology-based or mediated information processing, communication, and information services are hallmarks of the digital world [Zhang and Benjamin, 2007]. This is true for social commerce as well, which is heavily mediated by technological capabilities and advancements. Thus, we must necessarily be concerned with the technology-related aspects of social commerce.

Finally, *information* with a social purpose has a lifecycle that includes the acquisition or creation, processing, dissemination, and use. The intrinsic nature of information includes information organization, form, structure, classification, cataloging, and indexing. Applications of information in practice depend on how it interacts with other fundamental components of the I-model, and within what domains and contexts [Zhang and Benjamin, 2007]. Information is thus a fundamental component in social commerce with an emphasis on user/consumer-generated content.

In this article, we use this adapted I-model framework to analyze and investigate various aspects of social commerce and its evolution. Besides examining each component as a dimension, we will also examine the integration, interaction, and interdependencies among the components.

III. A HISTORICAL RECOUNT

This section recounts historical events and critical turning points of social commerce as described largely in trade articles and Web postings. In order to describe these in a structured fashion, each year follows along the four dimensions of the I-model as much as possible: people, management, technology, and information. There are instances, however, where these four dimensions intertwine with each other.

Social Commerce in 2005

The term *social commerce* is first introduced in 2005 on Yahoo! [Rubel, 2005]. Launched on November 11, 2005, Yahoo!'s Shoposphere is the earliest attempt to plunge into social commerce [Rothberg, 2005]. Its "Pick Lists" feature allows users to comment on and review products lists. The user-generated content makes Shoposphere like a "blogosphere" [Rothberg, 2005].

At that time, there are many forecasts and projections for social commerce. On the *people* dimension, consumers are believed to rely on peers (peer-generated content) rather than marketers (marketer-generated content) as their information sources. On the *management* dimension, the basic ideas are two-fold: (1) online ads should shift from attracting potential consumers to giving advice to consumers, allowing shoppers to discover products based on lists by other shoppers, and (2) social commerce should move the dominant paradigm of e-commerce marketing from short-tail thinking to long-tail thinking. A short-tail thinking strategy is to attract attention, while a long-tail thinking strategy is to find niche products. Such strategies provide potential opportunities for small businesses to make profits online by selling small numbers of hard-to-find items in order to differentiate themselves from their larger counterparts.

On the *technical* dimension, social commerce is portrayed as e-commerce sites making use of user-generated features like blogs (Rothberg 2005), or partnering with blog platforms [Rubel, 2005]. For example, Treonauts blog provides advice and reviews on products, and its e-commerce partners then handles the orders [Rubel, 2005]. Thus, the forecasts from 2005 regarding social commerce basically look at the potential benefits of making money by bloggers and small businesses. On the *information* side, the content is peer-generated, made possible by the emergence of Web 2.0 technologies.

Social Commerce in 2006

Several realizations and assumptions are made in 2006 regarding consumers and their needs. On the *people* dimension, the first assumption is that shoppers may not always be goal-oriented; that is, they may not always have clear ideas on what or where to purchase. This assumption maintains that knowing what others purchased would help shoppers generate concrete shopping ideas [Tedeschi, 2006]. The second assumption is that shoppers would like shopping with other people and investing time in socializing to generate clearer purchasing ideas [Beisel, 2006].

The assumptions about consumers are associated with the *management* dimension. Instead of focusing on transactions, which is believed to be the main focus of e-commerce, businesses are advised to provide collaborative spaces for shoppers to exchange shopping ideas, thereby enhancing their overall shopping experience. The long-tail niche products idea for small startup retailers continues in 2006. In addition, suggestions are made for giant e-tailers such as eBay, Amazon, Gateway and Wal-Mart to form strategic alliances with social networking sites [O'Malley, 2006] or to incorporate social functions in their websites. Suggestions on business strategies move from the stances of small businesses to incorporate the stances of larger businesses.

On the *technology* dimension, several social shopping site startups are developing IT platforms during this time, such as This.Next, Kaboodle, Wists, StyleHive, Crowdstorm, while several other startups struggle, including myPickList, StyleFeeder, Slister, and ClipClip. The general trend is to incorporate social networking functions into shopping activities and, at the same time, explore suitable and practical business models. Additionally, at this time it is considered challenging to develop feasible business models for small startups. Meanwhile, Facebook and MySpace, given their massive traffic, are both highly regarded as social networks with strong business potentials. Yet, the challenge to realizing successful social commerce on these sites is how to connect them successfully with e-business sites [O'Malley, 2006]. On the *information* side, social shopping sites support consumers by combining research and purchasing into a one-stop activity.

It is worth noting that some use the terms *social shopping* and *social commerce* interchangeably [Tedeschi, 2006]. Others distinguish between the two concepts. Beisel [2006] defines *social commerce* as creating places where people can collaborate online, get advice from trusted individuals, and find goods and services and then purchase them. Meanwhile, Beisel conceptualizes social shopping as the act of sharing the experience of shopping with others. Thus, the two terms are different in scope: social shopping is a subset of social commerce, and thus it has a narrower scope than social commerce.

Social Commerce in 2007

Social shopping sites begin to grow greatly in 2007, leading to further attempts to understand consumers and develop suitable business models and strategies. On the *people* dimension, two conflicting generalizations about social shoppers are discussed at this time. The first is that consumers are rational actors wanting to know what friends or other like-minded individuals think, purchase, or recommend [McCarthy, 2007]. Thus, peer recommendations seem desirable because they would trigger a sense of credibility and trust in consumers' minds, which in turn would make them more likely to purchase the recommended products, or to recommend the products they learned about from their peers [Gordon, 2007]. As such, the concept of social network becomes linked to the concepts of peer recommendations, peer trust, and credibility. Under this rational behavioral assumption, social shoppers are rational information seekers driven by cognitive thinking. Contrary to this, the second generalization is that social shoppers are non-rational, driven by positive affect or emotional connections to others involved in shopping activities, and often making unplanned purchases [Voight, 2007].

On the *management* dimension, while the business trend in the year before 2006 is for e-commerce sites to tap into social networking sites, the theme in 2007 is for social networking sites to tap into shopping functions. This is evidenced by the fact that in 2007, the social networking site Facebook adds shopping services to its menu to let members track what other members in their network purchased [Creamer, 2007]. People start to question and explore the business values of social commerce [Creamer, 2007]. In traditional short-tail models, advertising is the primary source of business value. However, in 2007, a new understanding is that social networking might generate business value from different sources. Another issue is how to converge online and offline social networks to reflect the shopping behaviors of users switching between online and offline modes [Creamer, 2007]. Focusing exclusively on online social networks, while ignoring the offline social networks is viewed as a limitation [Creamer, 2007]. In China, team-buying (or tuangou) becomes a form of shopping also known as "cwordsumption," with the purpose of gathering groups together who could then bargain with merchants [Harkin, 2007].

On the *technology* dimension, social commerce is considered to be more advanced than search engines. Search engines seem to have two limitations: first, they cannot tell shoppers what their friends or other shoppers think or purchase, and, second, they restrict small businesses with limited budgets for being listed at the top of the search results [McCarthy, 2007]. Social commerce, thus, becomes a powerful tool, as it combines search engine functions and social networking functions [McCarthy, 2007]. The number of social shopping sites grows heavily in 2007. IT platforms expand from blogs, to social networking sites (i.e., MySpace, Second Life), and to user-generated content sites (i.e., YouTube). Likewise, the functions of these sites become more diverse. Business concepts such as branded social networks and branded communities convey the idea that shoppers can bookmark or blog on the products of their choice [Corcoran, 2007].

On the *information* dimension, the content or information shared in social commerce evolved from the traditional text-based recommendations to audio- and video-based (i.e., YouTube). Classification of social shopping sites based on different functions appears in 2007. Beyond the surface and descriptive level, a primitive classification is developed to classify practices in social commerce. For example, Bustos [2007] classifies social shopping into social shopping bookmarking sites (or social wish lists), social deals and coupons sites, and social comparison engines. Two new information-related issues emerge in 2007 as well. The first is to track which sites are successful, and which cause aggravation to their users [Bustos, 2007]. The second is how to develop useful content strategies for social shopping sites [Corcoran, 2007].

Social Commerce in 2008

The year 2008 can be considered the year in which earlier forecasts and expectations about social commerce manifest themselves into actual business practices. Such practices influence a wide range of industries that spanned from fashion (e.g., Stylehive) to furniture (e.g., ShopStyle). Social bookmarking, or "wishlisting," and coupon sharing gain momentum. As social commerce business practices begin to emerge, so do concrete strategies and practical challenges.

On the *people* dimension, while social commerce is expected to result in robust business value, it is realized, however, that users are not always receptive to marketers' messages nor do they behave in ways that marketers would like [Clawson, 2008]. Despite the seemingly massive number of users on social networks, the number of active users engaging in direct commerce is considered to be too small to create massive business value or to revolutionize business [Clawson, 2008]. It is thus speculated that social networks are beneficial primarily in regard to marketing and branding, but not beneficial in terms of making money or business transactions. This leads to the belief that setting up shopping applications in places like Facebook is simply a minor add-on that provides a marginal factor for generating profits.

On the *management* dimension, while shopping recommendations is the highlighted business strategy in previous years, bargain finding emerges in 2008 [Kooser, 2008]. This business strategy emphasizes connecting shoppers with products, especially niche products. It is worth noting that none of these business strategies seem to be significantly different from those of e-commerce; social commerce reuses some of the traditional e-commerce strategies to bring social network to the forefront to connect shoppers with one another or with products. The implication is that social commerce, by this time, is not a new application or revolution, but rather an evolution of e-commerce. Yet, the difference between social commerce and e-commerce is clear in that e-commerce focuses on maximizing efficiency with strategies for sophisticated searches, one-click purchasing, and recommendations by the systems, based on users' past shopping activities [Carroll, 2008]. Social commerce, on the other hand, places shopping goals and efficiencies secondary to social goals such as sharing information and networking [Carroll, 2008].

The difference between e-commerce and social commerce is further demonstrated from the perspective of gender orientation. Shopping for fun or for social purpose (i.e., social commerce) is considered more female-oriented, while efficiency-maximizing e-commerce is considered more male-oriented [Carroll, 2008]. This gender perspective is congruent with a later report on social networking which showed that "social networks reach a higher percentage of women than men globally, with 75.8 percent of all women online visiting a social network in May 2010 versus 69.7 percent of men. Women spend 30 percent more time on SNS than men" [comScore, 2010].

On the *technical* dimension, social shopping websites and a combination of social network sites with commerce functionalities continue to be the trend. Startups continue to leverage user-generated content of social shopping sites. On the *information* dimension, social shopping site content is "crowdsourced" to the communities of users [Gaulin, 2008]. The concept of "crowdsourcing" is based on user-generated content, although this concept of "user" referred not only to individuals, but also groups and communities.

Social Commerce in 2009

In 2009, social commerce expands to include new technical platforms and business practices (e.g., Twitter, mobile phones, combining online with offline shopping activities, etc.). More attention is also given to trying to better understanding consumers.

On the *people* dimension, it is recognized that customers are empowered to be able to pursue their own interests or guard their online activities, thus reducing the importance of marketers' roles in shaping customers' interests [Hoffman, 2009]. For example, users can rely on their own social networks to gather product information rather than relying on information provided by the marketers. New challenges in social commerce at this time are identified, including how to engage and collaborate with consumers and how to identify influential customers in online communities [Gray, 2009; Hoffman, 2009]. Social psychology is drawn on to help explain why social commerce made sense to shoppers. Six heuristics that social shoppers used to make intuitive decisions are identified: social proof (i.e., follow the crowd), authority (i.e., follow the authority), scarcity (i.e., scarce stuff is good stuff), liking (i.e., follow those you like), consistency (i.e., be consistent to past beliefs and behavior), and reciprocity (i.e., repay favors) [Marsden, 2009b]. These six heuristics provide a framework for six social commerce strategies: the social proof strategy, the authority strategy, the scarcity strategy, the liking strategy, the consistency strategy, and the reciprocity strategy [Marsden, 2009b]. Since then, the understanding of behavioral aspects of social commerce is moved from a descriptive level to conceptual and explanatory levels.

Debates continue on what social commerce is and whether it should work. A set of chronological definitions appear, identifying six aspects of social commerce: social shopping, ratings and reviews, recommendations, forums and communities, social media optimization, and social ads and applications [Marsden, 2009a]. These chronological definitions consider the scopes of social commerce and social shopping as different; social shopping is viewed as one of multiple aspects of social commerce. Furthermore, the chronological definitions reveal that social commerce and e-commerce overlap on several dimensions (i.e., rating and reviews, recommendations, and forums and communities). The overlaps imply that social commerce is not a revolution different in essence from e-commerce, but rather an evolution building on the practices of e-commerce.

On the *management* dimension, suggestions from 2006 for e-businesses to establish social presences in social networking sites, as well as their own e-commerce sites, are realized as business practices. In August 2009, the first e-commerce store on Facebook is launched. Because Facebook implements e-commerce in its newsfeed application, social commerce is given new meaning with the phrase *newsfeed purchasing* [Klaassen, 2009]. In addition to having social presence in social networking sites, businesses also create their own "company-controlled communities" to provide social spaces for their customers to exchange product information [Hoffman, 2009]. "Co-creation" specifies the information source in social commerce. It is a strategic business concept describing collaboration between businesses and customers in creating advertising messages or customer-generated ads

through "company-controlled communities," but "there really aren't any best practices or established business models yet" [Hoffman, 2009, p.3].

On the *technical* dimension, IT platforms extend beyond Facebook to include Twitter and mobile phones [Gray, 2009; Hwang, 2009]. Mobile phones in particular are considered a fertile arena for future growth in social commerce [Smith, 2009]. Social commerce in 2009 further embraces a multi-channel concept with two meanings on both the *management* and *technical aspects*. First, it means a combination of online channels (i.e., online marketing) and offline channels (i.e., in-store activities) through social media [Smith, 2009]. Rooted in this idea, social shopping has a different meaning: sharing shopping ideas with friends through social media (e.g., mobile phone) while doing "High Street" (online) shopping. Second, multi-channel means using different social media or social networks to complete shopping activities. For example, Oasis, a fashion brand, uses Facebook and Twitter as two different social media to promote an event in different stages. Smith [2009] states that, "so while Facebook works as a great driver before an event, Twitter is an effective real-time tool to engage people as the event is happening" (p. 19). In 2009 we see a convergence in social commerce in regard to integrating online and offline social networks, as well as integrating different social media.

On the *information* dimension, we see the convergent content strategy converging content across different social networks in various social media.

Social Commerce in 2010

It becomes obvious in 2010 that social commerce becomes a global phenomenon, although not all countries or regions have the same level of development in conceptualization and practice. For example, in the UK, discussions are ongoing as to what social commerce is (Is it social activities on commerce sites and/or commerce on social sites?) and whether or not the UK is ready for it. Yet, the advancement in a number of countries pushes the social commerce practice to a new level.

On the *people* dimension, social commerce taps into the economic concerns of the users beyond their need for having fun. It merges the needs of social fun with social savings. In Japan, for example, there is a trend toward what is called *Mainichi Tokubai* (which means "everyday deal") where content is crowdsourced by price-sensitive consumers [Marsden, 2010b]. Mainichi Tokubai taps into the economic concerns of Japanese users, especially housewives, to fight deflation and make ends meet. In China, Tuangou becomes a pervasive trend that originates in online chat rooms with the aim to "fuse online collaboration with high street retail" [Marsden, 2010c]. This particular Chinese style team bargaining lets shoppers self-organize themselves and get discounts out of their own negotiation on the brands they like from high-street retailers. The core of this team bargaining is the unknown discounts that is up to the groups to chop down with negotiation, which is different from those predefined deals or group coupons practices (i.e., discounts is pre-decided by the retailers/sellers to lure the mass) that is pervasive in e-commerce and social commerce in Western countries such as the U.S. and Canada. Some consider this particular Chinese-style team bargaining to be more interesting [Marsden, 2010c] and suggest it for integration into Western style team buying as a way to enhance *social enjoyment and adventure* in social savings. However, the business model of Groupon on deals for consumer groups has become more and more popular worldwide. For example, Groupon Janpan and Groupon Taiwan, featuring coupons on local businesses and services, debut in August and in December in 2010 respectively.

It is interesting to note that social commerce in Asia, such as Japan and China, is driven so far mostly by economic concerns, especially deal-oriented social savings, rather than social fun. However, social commerce in Western countries addresses both social fun and social savings for shoppers with different motivations. Here the assumption of consumers in social commerce moves from a social fun perspective back to a utilitarian, price-sensitive perspective, similar to the focus of traditional e-commerce, or a combination of both social fun and social savings. Interpreting from a culture lens, the culture difference implies that social commerce has different foci on the utilitarian, economic side or the recreational side in different stages and different levels of development worldwide. Therefore, social commerce is still an emerging, evolving phenomenon in need of further understanding.

On the *management* side, the concept of Tuangou becomes pervasive and further evolves from that of single-channel single-setting online group buying in 2007 (i.e., from online retailer) to multi-channel multi-setting group buying in 2010 (e.g., combine online and offline retailers, media, or social networks). Groupon in the U.S. becomes extremely popular, serving more than forty markets as of December 2010, even though it is first launched in November 2008. In late 2010, Google attempts to buy Groupon with an offer of USD 5.3 billion [PTI, 2010]. Along the way, a new business practice in social commerce is emerged in the form of social currency, similar to a social version of PayPal [Marsden, 2010f]. This practice further extends the expectations of social commerce from a branding orientation to a transaction orientation.

The understanding of consumers and corresponding business strategies are synchronized with the *IT platforms.* Facebook launches its first group-buying application (i.e., Wildfire) [Marsden, 2010a]. The battle on group-buying between Facebook (the largest social networking site) and Groupon (the largest collective buying website) is expected to start. Facebook is also expected to become the de facto social commerce platform [Marsden, 2010e]. Despite the skeptical view in 2008 that social commerce is good for branding but not for making money, Facebook begins to make money. As such, the term *f-commerce* (Facebook commerce) is coined [Crum, 2010]. The IT platforms supporting social commerce further expand from Facebook, MySpace, and Twitter to include applications for smart phones (such as iPhone and Android). The iGroup application is released for iPhone users to share information with their online contacts (i.e., online social network) who happen to be in a specific location (i.e., retailing stores) [PatentlyApple, 2010].

Merging the online/virtual and the physical world through seamless technical means is the other theme in 2010. For example, FastMall, an iPhone application, is created to answer the need for a convergence, "a way to meld the physical and virtual shopping experiences without obstacles" [Feuer, 2010, p.95). The goal is to draw customers back to the store and turn casual shoppers into loyal brand champions [Feuer, 2010].

On the *information* aspect, as social commerce becomes a global trend, content now can be crowdsourced to global customers while still being localized within various cultures in different nations, communities, or groups.

Social Commerce in 2011

In 2011, social commerce continues to develop and evolve. On the *people* dimension, shoppers are mapped by their interests in addition to their social networks. The rationale is that people have some interests that may not be influenced by their peers; therefore social commerce can be further advanced to map interest graphs of people [Malik, 2011]. We elaborate on this rationale and argue that socializing and peer recommendations may not always be influential in social commerce.

On the *management* dimension, online auction site eBay integrates Facebook into its homepage to pave a road to social commerce [Ghesh, 2011]. Social commerce practice is further moving into the e-business of online auctions through the facilitation of social networking sites. Team-buying business strategy continues to develop in 2011. Despite Groupon's promising development, its business model is harassed by the copycat deal-of-the-day websites in China and the onslaught of the Facebook [Wang, Q., 2011]. The concept "social business" is used to forecast B2B through social media [Brito, 2011], although some people still view social business as B2C or people 2 people [Neisser, 2011].

On the *technology* dimension, Facebook continues to be the IT platform under the spotlight of the social commerce scene, as being exemplified in eBay's practice of including Facebook into its storefront. In 2011, Google launches its social network service, Google+, which is expected to lead to g-commerce in the near future. Furthermore, SellSimply is launched to make purchase available on Twitter, which further brings t-commerce. We expect to see social commerce to continue from f-commerce, to g-commerce and t-commerce.

On the *information* dimension, the demand for niche and localized content continues and increases in order to suit shoppers from different cultures and with different interests. The infograph of social network mapping moves from social graphs to interest graphs.

Table 1 summarizes the social commerce evolution along the four dimensions of people, management, technology, and information. The findings can be examined along the four dimensions individually and collectively. In the next section, we provide an integrative view of social commerce.

IV. AN INTEGRATIVE VIEW OF SOCIAL COMMERCE EVOLUTION

According to the I-model, information related phenomena can be examined along the four dimensions, as well as the interdependences and equilibrium among the dimensions.

On Each of the Four Dimensions

On the *people* dimension, understanding humans as consumers in social commerce is not a straightforward task. We see the major themes of this understanding evolving from a more general emotion-based description on human beings' social-gathering nature (i.e., people like to shop with others) to a deeper rationale-based reasoning on the impetus of shoppers to seek recommendations and share ideas from/with others, which are largely influenced by technological capabilities. The assumptions about people are further enriched by different perspectives at a higher level, such as the view of empowered social consumers, social psychology and social heuristics, gender orientation

Table 1: Social Commerce Evolution Along the People, Management, Technology, and Information Dimensions				
Year	Dimension			
	People	Management	Technology	Information
2005	People like to give and take advice from other shoppers.	Long-tail niche product strategy caters to small businesses.	Blog + e-commerce sites	User-generated content (information source: users)
2006	Shoppers generate shopping ideas through socializing.	Social experience strategy (e.g., providing collaborative spaces); alliance strategy (aligns e-tailers and social networking sites).	Startup social shopping sites; social networking functions + e-commerce sites	Content sites combining research and purchase in a platform
2007	Social shoppers are both cognitive (utility driven) and emotional (fun driven).	Converging online and offline social networks; crowdsumption (team buying) strategy.	Search engine function + social networking function; blogs, social networking sites, video do-it-yourself media (i.e., YouTube)	Information type (text + audio + video)
2008	Social network users are not receptive to marketing.	Social networks are good for branding, not for transactions; concrete content strategy.	EC sites+ social networking functions; social shopping sites	Crowdsourced content (information sources: user communities)
2009	Users are empowered by social networks of their own choices; traditional EC is male-oriented, social shopping is female-oriented (gender perspective).	Co-creating and multi-channel strategies.	Twitter (event marketing); mobile phones	Co-creating content (information sources: users+marketers)
2010	Social commerce is good for fighting with deflation (economic perspective); social saving is more pervasive in Asia and social fun is more pervasive in western countries (cultural perspective).	Cultural perspectives on social commerce emerged; Chinese-style Tuangou converges online and offline retailers.	iPhone; f-commerce*;* Group-buying application in Facebook	Global crowdsourcing
2011	Shoppers have interests beyond peer influence.	Online auction site + social networking site (eBay+Facebook); Social business; Groupon copycats pervade in China.	Facebook; Google +; Twitter (shopping)	Niche and local content; interest graph

(i.e., e-commerce is more male-oriented and social commerce is more female-oriented), national culture orientation, and social economic considerations toward shopping goals as being both utilitarian and hedonic (i.e., social savings). It is interesting to note the differences between e-commerce and social commerce over time. The original assumption regarding social commerce involves having fun, which represents the softer side of social relationships. Yet, with the pervasion of team buying, the assumptions about social commerce further swing toward the utility side of traditional e-commerce that focuses on maximizing efficiency and cost-saving through social saving. The critical turning points of social commerce practices on the *people aspect* are the global team buying and connections based on shoppers' interest graphs.

On the *management* dimension, especially for business strategies and models, the major themes of social commerce evolve from long-tail thinking and finding niche products and branded social networks (branded communities), to a skeptical view on social branding vs. social commerce (i.e., is social commerce good for branding or transactions?). Regarding strategic alliance, the triggering directions move from e-tailers tapping into social

networking sites, to social networking sites launching shopping functions and e-commerce functions. Business strategies evolve from focusing on a single online social network to converging social networks online and offline, and to converging online social networks with offline retailers, and co-creating messages with customers. Group buying (drawing on the assumptions of social saving) becomes an important trend in global social commerce. It is expected to be pervasive and the dominant theme in social commerce practice over the next few years. On the *management* dimension, co-creating and multi-channel strategies are critical to harness the collective intelligence in various social shopping channels.

On the *technology* dimension, IT platforms evolve from the link between blogs and e-commerce sites to the startup of social shopping sites, with e-commerce sites providing social-networking functions, or search engine providing social networking function, to the link between online and offline social network channels. The focus further evolves from a single social media type to different social media types in various stages of shopping activities. Among various social media types, Facebook has become a major IT platform for social commerce. Facebook is the de facto money making platform of social commerce and is turning social commerce into a new phenomenon that is called *f-commerce.* In addition, mobile phones have pushed social commerce even further into merging online social networks and physical retail stores. The IT platforms further diverge from the Facebook primacy to Google + and Twitter and is expected to turn a new leaf to g-commerce and t-commerce.

On the *information* dimension, we see that social commerce started with the concept of user-generated content, made possible by the Web 2.0 technologies. It is further advanced to crowdsourced content to the communities of users, co-created content between consumers and marketers and the globalized or localized crowdsourced content. Information type is further enriched from text-based to audio-, video-, and multimedia-based. Crowdsourcing, co-creating, and global crowdsourcing are the critical content strategies to leverage user generated content.

Divergence and Convergence

In summary, we see the two trends of convergence and divergence intertwining in the evolution of social commerce. On *technology*, we see a trend of technical divergence where successful social media drive unsuccessful ones out of the turf battle of social commerce. At the same time, we see a trend of convergence where different media types or different social networks converge with each other in different settings. This is similar to *people and management.* We see the trend of globalization (i.e., convergence) by engaging in social commerce worldwide both from the people and management aspects. At the same time, we see the trend of localization (i.e., divergence) to reflect the differences of interests and culture in different communities or nations. On the *information* dimension, we see a trend of localized crowdsourced content and the globalized crowdsourced content, showing both divergence and convergence respectively.

Interdependencies and Equilibrium Among the Four Dimensions

We also see interdependences and equilibrium among the four dimensions. The early distinction that social commerce is about shopping for fun and socializing while e-commerce is about shopping for savings fades as of 2011. With the pervasion of team buying for price-reduction, the landscape of social commerce swings back, being viewed as a form of shopping that is both utilitarian and hedonic, and that is good for fighting inflation. The pendulum like notion of social commerce may continue as each and all of the four aspects may continue to evolve and influence each other.

Collectively, the four dimensions of the I-model (people, management, technology, and information) show the dynamics, interdependencies, and equilibrium [Zhang and Benjamin, 2007] as social commerce evolves. For example, business strategies and models largely depend on, and influence, technological development and information sources/types, while technological capabilities and information sources further enhance new development of business strategies and models. Our understanding of human mental processes and behaviors are shaped by technological capabilities, information sources/types, and business strategies as potential incentives or enablers. To return to the concept of Tuangou, in China, shoppers are motivated by the advantages of social savings. Thus, group buying becomes a business trend that further drives the development of global crowdsourcing content and group-buying applications in Facebook (such as the iGroup application). In this example, the business trend leads to the refinement of technological capabilities intending to facilitate collaboration among consumers.

Another example comes from multi-channel social commerce strategies intended to connect online and offline shopping activities/social networks/information sources through social media. Initially, business strategies intend to harness shoppers' online behaviors. Yet, business strategies further evolve to reflect shoppers' experiences that merge online and offline activities, and use information from both marketers and consumers. A need for merging online and offline experiences further drives the development of the iPhone and iGroup in social commerce. In sum, an impetus of social commerce business strategies and technologies is to reflect shoppers' social experience in

reality. As summarized above in Table 1, all four components have been evolving and influencing each other mutually.

V. STANDING VIEWS AND ALTERNATIVE PERSPECTIVES

As an emerging phenomenon, it is no surprise that social commerce is characterized with various notions from different views and perspectives, while some of these can be in conflict with each other. In this section, we summarize some of these views and positions, intentionally not siding with any particular one in order to provide an objective picture of the social commerce landscape. Table 2 provides a summary of these diverse positions. On the positive side, these positions on various issues of social commerce can fertilize our understanding of social commerce and enhance its future developments. Noting the year a view appears helps us understand the challenges or unsolved issues in the evolutionary course of social commerce. For example, the debate on whether social commerce is good for transactions or for branding reflects the bottleneck of social commerce practices in terms of making profit. At the outset, social commerce is forecasted to become a lucrative marketplace for businesses given the networking potential of MySpace and Facebook [O'Malley, 2006]. However, since many social network sites fall out of the spotlight (e.g., MySpace, Second Life), the transactional function of social commerce is in doubt. Indeed, it is questionable whether social commerce without a successful transaction function should be regarded as any kind of commerce. Yet, Facebook's making profit and filing for IPO legitimizes the expectations in the forecast and the investment into this new area of social commerce with transaction functions. We briefly discuss each of these diverse positions below.

"Social Commerce" and "E-Commerce"

E-commerce is considered to be oriented toward efficiency, transaction, and "masculinity," while social commerce is oriented toward social networking, branding, and "femininity" [Beisel, 2006; Clawson, 2008; Carroll, 2008]. While social commerce is portrayed by some as a new category of e-commerce combining shopping and social networking activities online [Harkin, 2007; Wang, 2009], others view social commerce as a subcategory of e-commerce [Kooser, 2008; Marsden, 2009a]. Some claim that social commerce is not a revolution but an evolution built on the concepts and applications of e-commerce [Kooser, 2008; Marsden, 2009a]. Some claim that the design of traditional e-commerce is catalog-based, while social commerce's design combines virtual market with social places for cooperation [Khoury, Shen and Shirmohammadi, 2008]. Finally, some argue that traditional EC sites sell primarily real items, while social shopping sites sell both virtual and real items. However, shopping is not the main function but the category extension of social networking sites (Cha, 2009).

"Social Commerce" and "Social Shopping"

While "social commerce" and "social shopping" are used interchangeably by some [Tedeschi, 2006; Leitner and Grechenig, 2007b; Leitner and Grechenig, 2008a], the more commonly adopted perspective now is that social shopping is a subset of social commerce. Some marketing research (e.g., Stephen and Toubia 2010) treats these two as separate concepts with the main difference being that social commerce connects sellers and social shopping connects customers.

It is worth noting that the term *social shopping* sometimes is used to refer to offline social behavior prior to 2005 [Wang, 2009]. For example, *social shopping* can refer to hedonic shopping behavior, motives [Tauber, 1995], or orientations [Marshall and Heslop, 1988] in the offline setting (e.g., in a physical shopping mall), and this concept is still widely seen in the marketing literature after 2005 [Jamala, Daviesa, Chudryb and Al-Marri, 2006; Patel and Sharma, 2009]. Similarly, the term *social commerce* is used prior to 2005 in a few studies to refer to social-based offline activities [Snyder, Cheavens and Sympson, 1997]. These meanings are different from the ones we discover and discuss in this article.

i2i, C2C, and B2C

The emphasis in Stephen and Toubia's [2010] definitions on connecting individual sellers or customers implies that social commerce and social shopping are i2i (individual-to-individual) or C2C (customer-to-customer). However, some consider social shopping as both C2C and B2C (business-to-customer). For example, Leitner and Grechenig [2007a] define social shopping as "a specific approach of B2C and C2C e-commerce, where consumers collaborate and shop in an environment similar to social networking platforms (e.g., MySpace, Facebook, Xanga, Orkut, or Hi5)" (p. 353). Wang [C., 2009; C., 2011] also considers social shopping as both C2C and B2C.

Rational or Nonrational Social Shoppers

Some describe social shoppers as being rationally and cognitively driven because they attempt to seek shopping recommendations from their peers in order to craft shopping ideas or making shopping decisions [Gordon, 2007;

Table 2: Different Positions on Social Commerce		
Positions		References
Social commerce and e-commerce		
Position 1: Functional perspective	Efficiency vs. social networking	[Beisel, 2006]
Position 2: Business value perspective	Transaction vs. branding	[Clawson, 2008]
Position 3: Gender perspective	Masculine vs. feminine	[Carroll, 2008]
Position 4: Innovation perspective	Social commerce is a new category of e-commerce.	[Harkin, 2007; Wang, 2009]
Position 5: Evolution perspective	Social commerce is not a revolution but an evolution of e-commerce.	[Kooser, 2008; Marsden, 2009a]
Position 6: Design perspective	Traditional EC is catalog-based design; social commerce's design combines virtual market with social places for cooperation.	[Khoury, Shen et al., 2008]
Position 7: Product category perspective	Traditional EC sites sell primarily real items; social shopping sites sell both virtual and real items; shopping is not the main function but the category extension of social networking sites.	[Cha, 2009]
Social commerce and social shopping		
Position 1	Social shopping and social commerce are interchangeable.	[Tedeschi, 2006; Leitner and Grechenig, 2008a]
Position 2	Social shopping is a subset of social commerce.	[Beisel, 2006; Marsden, 2009a]
Position 3	Social commerce connects sellers; social shopping connects customers.	[Stephen and Toubia, 2010]
i2i, C2C or B2C		
Position 1: C2C or i2i	Social commerce connects sellers (i.e., i2i); social shopping connects customers (i.e., c2c).	[Stephen and Toubia, 2010]
Position 2: B2C	Social shopping or social commerce is both B2C and C2C e-commerce.	[Leitner and Grechenig, 2007a; Wang, 2009; Wang, 2011]
Rational or non-rational social shoppers		
Position 1: Rational driven	Social Shoppers are rational, cognitive driven.	[Gordon, 2007; McCarthy, 2007]
Position 2: Emotional driven	Social shoppers are emotional and fun driven.	[Voight, 2007]
Position 3: Intuitive driven	Social shoppers are intuitive.	[Marsden, 2009b]
Position 4: Economic driven	Social shoppers are economic driven.	[Marsden, 2010d; Marsden, 2010b]
Position 5: Own Interest driven	Social shoppers have some interests not influenced by their peers.	[Malik, 2011]
Transaction and branding		
Position1: Social branding perspective	Social commerce is to provide places to exchange shopping ideas; social commerce is good for branding or pre-purchase activities.	[Beisel, 2006; Clawson, 2008]
Position 2: Skeptical perspective	Social commerce is not good for branding. Active, empowered users are not receptive to branding marketing strategies.	[Gray, 2009; Hoffman, 2009]
Position 3: Transaction perspective	Social commerce is good for making profit; Facebook begins to make money (f-commerce).	[Crum, 2010]
Types of connections		
Position 1	Connecting business sites with social networking sites	[O'Malley, 2006]
Position 2	Connecting shoppers with shoppers	[Beisel, 2006]
Position 3	Connecting shoppers with products	[Kooser, 2008]
Position 4	Connecting online and offline social networks	[Smith, 2009]
Position 5	Connecting sellers/online shops with sellers/online shops	[Stephena and Toubiab, 2009; Stephen and Toubia, 2010]

Table 2: Different Positions on Social Commerce – Continued		
Business values		
Position 1 Active users	Social commerce generates more active users, which leads to business values.	[Leitner and Grechenig, 2008b]
Position 2 Inactive users	The number of active users is too small to bring business value; it is a challenge to motivate users to participate in social commerce; some users don't register but use social shopping sites as content sites for shopping research.	[Clawson, 2008; Goldie, 2008; Hoffman, 2009]

McCarthy, 2007]. Others describe social shoppers as emotional, impulsive, and hedonically driven because they like to have fun by shopping online with others [Voight, 2007]. Social shoppers are also recognized as being intuitively or economically-driven because they tend to make intuitive decisions or aim to save money through group shopping [Marsden, 2009b]. The term *social saving* implies the economically-driven motivation of social shoppers [Marsden, 2009b]. Lately, social shoppers are considered of having own interests that are not influenced by their peers and this people-assumption moves attention from people's social graphs to interest graphs [Malik, 2011].

Transactions and Branding

A widely held viewpoint is that social commerce is good for exchanging shopping ideas [Beisel, 2006] and, therefore, is good for branding or pre-purchase activities, but not for making profits [Clawson, 2008]. A more radical viewpoint on this side is that social commerce is not good for transactions and not good for branding either. One of the arguments behind this posits that the numbers of active social shoppers is too small to generate profits, while another argument is that empowered social shoppers are not receptive to marketer's information [Goldie, 2008; Gray, 2009; Hoffman, 2009]. However, the viewpoint and practice shift to social commerce being good for making profit, as evidenced by the success of Facebook and f-commerce [Crum, 2010].

Types of Connections

Social networks are central to social commerce as they focus on connection. Five types of connections are found within the realm of social commerce: connecting business sites with social networking sites (i.e., alliance) [O'Malley, 2006], connecting shoppers with shoppers (i.e., exchange ideas, peer recommendations) [Beisel, 2006], connecting shoppers with products (bargain finding, niche products) [Kooser, 2008], connecting online and offline social networks (multi-channel) [Smith, 2009], and connecting sellers/online shops with sellers/online shops [Stephena and Toubiab, 2009; Stephen and Toubia, 2010].

Business Values

Regarding whether social commerce is a worthy investment or simply a marginal add-on practice, a common view is that social commerce generates business value indirectly through active users. While the opinion exists that social commerce is generating enough active users to lead to business value [Leitner and Grechenig, 2008b], others believe the number of active users is too small to make a significant difference in bringing about any business value [Clawson, 2008; Hoffman, 2009].

In the next section, we speculate some possible research directions for scholars to conduct research on the social commerce phenomenon, and some implications for practitioners to continue or start social commerce.

VI. POSSIBLE FUTURE DIRECTIONS

Before discussing any implications of this study and making suggestions for future research and practice, we need to point out that a major challenge for the recent social commerce development lies in making itself saliently different from the old business assumptions or practices. Otherwise, the importance and justification of academic research and business investments would remain elusive.

This challenge also reflects in the diverse views and positions of social commerce conceptualization, as shown in Table 2. As mentioned earlier, the term *social commerce* has appeared in the academic literature prior to 2005 with different meanings and connotations than what this article reports. These early studies do not fall into the scope of the emerging and evolving trend in the practice of social commerce that is enabled by Web 2.0 (or social media) that this article reports. Curty and Zhang [2011] also question what accounts for social commerce websites, given that the already known IT applications in social commerce such as recommendation systems and consumer communities have already taken into practice in late 90s (e.g., Amazon and Epinions).

Indeed, there are conceptual ambiguities on the definitions, scopes, and boundaries of social commerce and several related concepts. All of these indicate the emerging nature of social commerce that is different from all other phenomena we are familiar with and thus leaves a large room for investigation. In this section, we start with the academic definitions and conceptualizations of social commerce as a future direction for research.

Definitions and Conceptualizations of Social Commerce

The scholarly community has ample opportunities for investigating this unique and distinct phenomenon. So far, the academic publications on social commerce are scarce, with only limited coverage and narrow views. Table 3 summarizes the notions of social commerce (including social shopping) from the few academic articles that touch on some aspects of social commerce enabled by Web 2.0, with several studies using the term without providing an explicit definition (e.g., Zhu, Benbasat and Jiang, 2006; Ganesan, Sundaresan and Deo, 2008). Compared to the notions and developments in trade articles and practice (as shown in Tables 1 and 2), the academic effort has been minimal and less substantial.

Table 3: Definitions of Social Commerce from the Academic Literature		
Reference	Term	Definition/Notion
Zhu et al. [2006]	Social shopping	(no definition or description)
Jascanu et al. [2007]	Social shopping	A combination of social networking and e-commerce
Leitner and Grechenig [2007a]	Social shopping (also called *social commerce*)	An emerging phenomenon "characterized by offering platforms where consumers collaborate online, get advice from trusted individuals, find the right products of a repository and finally purchase them" (p. 353)
Ganesan et al. [2008]	Social commerce	(no definition or description)
Massetti [2008]	Social commerce (via social enterprise/social business)	"Social businesses differ from traditional not-for-profit institutions in that the social businesses must have profits to successfully function. And, they differ from traditional profit-based businesses in that their profits are used to support social causes rather than to increase the wealth of investors, managers, and owners" (p. 7).
Wang [2009]	Social shopping (also called social commerce)	A new types of e-commerce linking shopping and social networking through social media
Shen and Eder [2009]	Social shopping	"An extension of Business-to-Consumer E-commerce where consumers interact with each other as a main mechanism in conducting online shopping activities, such as discovering products, aggregating and sharing product information, and collaboratively making shopping decisions" (p. 1)
Kang and Park [2009]	Social shopping	A kind of e-commerce where people can comment and review items in blogs or online communities
Cha [2009]	Social shopping	Social shopping is shopping services provided by social networking sites. It can also be EC sites provide social networking function.
Stephen and Toubia [2010]	Social commerce	"An emerging trend in which sellers are connected in online social networks, and where sellers are individuals instead of firms" (p. 1)
Afrasiabi Rad and Benyoucef [2010]	Social commerce	"Refer to both networks of sellers and networks of buyers; it is the evolution of 'e-commerce 1.0' which is based on one-to-one interactions, into a more social and interactive form of e-commerce" (p. 2).
Liang, Ho, Li and Turban [2011]	Social commerce	"Social commerce is emerging as an important platform in e-commerce, primarily due to the increased popularity of social networking sites such as Facebook, LinkedIn, and Twitter" (p. 1).
Wang, C. [2011]	Social shopping and social commerce	"Social shopping and e-commerce are not dichotomous concepts. Social shopping can be an evolutionary concept, meaning a singular EC site advancing with social networking functions, or a synergistic concept, meaning EC sites connecting with the other social networking sites to form strategic alliance." (p.51)

At the beginning of the article, we stated that social commerce is a form of commerce mediated by social media and is converging both online and offline environments. Based on what we learned from the evolution of social commerce, we assert that this definition is inclusive of practice, activities, and various perspectives, and is still suitable for social commerce practice so far. We do want to note that the notions of commerce and mediation can be much broader than what may immediately come to one's mind.

The concept of commerce is broad in that (1) it can include interchange of ideas, opinions, sentiments, commodities or services, (2) it can involve activities that span the entire spectrum of getting ideas, doing research, conducting transactions, and post transaction activities (i.e., pre-, during, and post-transactions), and (3) it can incorporate online and offline commerce activities by integrating brick-and-mortar commerce, e-commerce, and mobile commerce. The mediation concept is also broad, in that it can include (1) direct mediation and indirect mediation where online and offline channels merge and interact, and (2) mediation where media-communicative change, institutional change and social-culture change are interrelated with commerce physically and virtually (i.e., mediatization).

The second notion of mediation brings up the idea of "mediatization," a concept that has been widely used in communications, political studies, cultural studies, etc., to describe a fundamental transformation of the relationships among the media, culture, and society. Mediatization relates to changes associated with communication media and their development with a basic assumption that the technological, semiotic, and economic characteristics of mass media result in problematic dependencies, constraints, and exaggerations [Schulz, 2004]. Mediatization is used to theorize the influence media exert on society and culture, in that mediatization is to be considered a double-sided process of high modernity in which the media on the one hand emerge as an independent institution with a logic of its own that other social institutions have to accommodate to; on the other hand, media simultaneously become an integrated part of other institutions like politics, work, family, and religion, as more and more of these institutional activities are performed through both interactive and mass media [Hjarvard, 2008]. It is the process of mediatization that transcends social commerce from the earlier ways of doing commerce either in traditional commerce or in e-commerce.

Units and Levels of Analysis

In addition to diverse definitions and conceptualizations, social commerce research and practice are shown to have different units of analysis. On the *technical dimension*, the units of analysis are social shopping websites [McCarthy, 2007; Parise and Guinan, 2008], social shopping platforms [Leitner and Grechenig, 2008a], social shopping channel [Ghose and Ipeirotis, 2009], or social shopping tools and functions [Business Wire, 2010]. On the *management dimension*, the units are social commerce strategies [Stewart, 2010] and social shopping services . On the *people dimension*, foci are social shopping behaviors [Permuto, 2009], social commerce networks [Stephen and Toubia, 2010] and social shopping communities [Shen and Eder, 2009]. In addition, academic research uses different levels in the analysis. For example, the level ranges from organizational level, such as organizations involving with Web 2.0 deployment [Parise and Guinan, 2008], to system level such as websites containing Web2.0 communities (e.g., facebook, google map, YouTube) [Hoegg, Martignoni, Meckel and Stanoevska-Slabeva, 2006] or online reputation system and product review systems [Ghose and Ipeirotis, 2009]. Such multiplicities in the units or levels of analysis show the multifaceted nature of social commerce and the complexity and dynamics of the phenomenon. All of these can lead to interesting research in identifying specific units of analysis or level issues in order to make research findings comparable and accumulative.

Diversity of People in Social Commerce

Current academic studies utilize behavioral theories or models such as the technology acceptance model (TAM) [Davis, 1989], other social psychology theories [Kang and Park, 2009; Shen and Eder, 2009], and a sense-making approach [Janson and Cecez-Kecmanoic, 2005]. Based on what we learn from social commerce evolution, there are diverse views and positions in social commerce (see Table 2) that may call for additional theoretical perspectives. For example, the multiplicity of social shoppers' motivations (e.g., rational, emotional, intuitive, economic, or interest driven) would call for a different theoretical base than the typical TAM study or any models rooted in the theory of reasoned action and theory of planned behavior [Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980; Ajzen and Fishbein, 2005]. While marketing studies use different perspectives and/or approaches to investigating social commerce [Stephena and Toubiab, 2009; Stephen and Toubia, 2010], IS researchers are similarly encouraged to use diverse perspectives, assumptions, and approaches to enrich our theoretical understanding. We also encourage future research to adopt a cultural perspective, a gender perspective or social heuristics to study people in social commerce to provide a more holistic understanding and to shed light on social commerce business strategies and technological designs.

Furthermore, some views or positions can be sometimes competing with each other. For example, while some argue that social shoppers are rational and like to seek peer recommendations, some argue that social shoppers are interest driven and, therefore, may not be influenced by their peers. Different assumptions implicate different technological designs, business strategies, and content strategies. We encourage future research to identify the conditions or contexts under which people behave in order to make better use of these competing views and positions.

Various and Multiple IT Platforms

Among the few current IS studies on social commerce, single IT platforms, especially social shopping websites (e.g., Shen and Eder, 2009) are the main focus. The evolution of social commerce practice, as depicted in this article, indicates that multi-channels, multimedia, multi-platforms, and multi-social networks become commonplace. This indicates that scholars' attention should go beyond singularity in platforms in order to address the convergence trend in social commerce development. Also, as Facebook, Google, and Twitter are three giant social media competing with each other in the social commerce terrain, future research are suggested to identify the critical (or distinctive) technological features (as well as business strategies or information content) among these promising platforms that can provide more values in the turf battle.

Business and Information/Content Strategies

There can be many issues along the management and information dimensions in regard to business strategies/models and content strategies. The diverged social commerce practice in f-commerce, g-commerce, and t-commerce calls for future research into identifying and developing business models and strategies. Also, with broad participation of global consumers who generate a large amount of content from diverse channels and platforms, how firms can manage co-creating and crowdsourcing strategies, and manage and make available the huge amount of content and information becomes a timely, interesting, and challenging issue for both practitioners and scholars to address. We also encourage future research to explore the conditions under which interest graph or social graph works better since these two types of infograph show two different value systems (i.e., peer-driven or interest-driven) in social commerce. And interest graph may further drive social commerce from the "socializing" or "peer recommendation" side to the "interest" side. Table 4 summarizes the possible directions for future research.

Table 4: Possible Directions for Future Research	
Challenges and Opportunities	*Future Research*
Conceptual Ambiguity	Conceptualizing and theorizing
Multiplicities of Units and Levels	Unit of analysis and level of analysis
Competing Assumptions and Positions	Triangulating with multiple methods, preexisting and new theoretical perspectives, assumptions, and approaches; contextualizing the conditions best suited for the assumptions and positions
Competing social media giants (e.g., Facebook, Google, and Twitter)	Identifying competitive technological features, business strategies and content strategies
Convergence of multiple social media, social networks	Extending from single platform to multiple platforms; convergent content strategies
Interest graph vs. social graph	Contextualizing the conditions best suited for each infograph

Implications for Practice

Since social commerce starts in, and is driven by practice, here we provide some implications for practices. Such implications can be depicted from both the convergence and divergence of themes in social commerce. It is recognized that the right content at the right time in the right location can be an unobtrusive way of enhancing consumers' shopping experiences. Streamlining shopping activities is a desirable strategy. Therefore, practitioners and businesses may want to have a *convergent media strategy* to converge multiple shopping channels (e.g., multiple websites, online and offline shopping places), multiple social networks, multiple social media (e.g., Facebook, Twitter), and multiple electronics such as smart phones and tablets.

Along these same lines, practitioners and businesses may also develop a *convergent content strategy* that deploys coherent messages and themes across diverse channels, social networks, media, or electronics. Since co-creating messages with the customers is important for creating and maintaining business-controlled communities, it is important for practitioners and businesses to collaborate with diverse customer segregations in various communities with a convergent theme to create a coherent image.

Moreover, to further draw on principal market segregation that builds on the theme of divergence, smaller businesses may want to target niche social networks (or niche communities) to develop and/or enhance their niche brands. While more and more businesses from different industries pour into the terrain of social commerce, businesses might make their social networks and social communities distinctive from others.

VII. CONCLUSION

In a short period of seven to eight years since the term's inception, social commerce has come a long way as an emerging global phenomenon. Our analysis shows that social commerce continues to develop and evolve. With the development of Facebook in making profit, social commerce is no longer just media hype or a business fad. It becomes an established practice, although the specifics of this practice continue to emerge and evolve. There are vast opportunities in social commerce for scholars and practitioners to apply seemingly successful business strategies and models and to analyze less successful ones. By providing a chronological and detailed examination of social commerce practice evolution with a framework that contains four important dimensions (people, management, technology and information), this article calls for more attention and effort from IS scholars to investigate interesting issues that can have both theoretical significance and practical implications.

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Editor's Note: The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the article on the Web can gain direct access to these linked references. Readers are warned, however, that:
1. These links existed as of the date of publication but are not guaranteed to be working thereafter.
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