Research Article

Justifying Virtual Presence in the Thai Silk Industry: Links Between Data and Discourse[1]

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Abstract

This article examines some of the discourses being put forward as justifications for Internet use and altered commodity chains in the Thai silk industry. Those discourses are then compared to data on the relationship between the Internet and prices and wages. The article specifically looks at claims about who is benefiting from value chain reconfigurations, and then it compares those claims to insights about the Thai silk industry collected using a series of surveys and in-depth interviews. The article demonstrates that claims are put forth that altered commodity chain topologies will necessarily result in an accrual of economic and cultural benefits for producers and/or consumers. However, there is little empirical proof that the integration of the Internet into the Thai silk industry is having any noticeable effect on prices or wages.

Introduction

For centuries, the Thai silk industry has provided economic support to hundreds of thousands of people in the northeast of Thailand, and it has become a part of the region's cultural heritage. However, the industry is now shrinking rapidly, largely because of the uncompetitive nature of the silk being produced. The Thai silk industry is distinct in Southeast Asia for its predominant use of handlooms (Rani, 1998; see also Figure 1). Reeling and weaving are most often performed by hand by rural women and elderly household members (Charsombut & Islam, 1992; Ohno & Jirapatpimol, 1998). This is the case partially because native and hybrid varieties of Thai yarn cannot be machine reeled, but the persistence of hand-loomed silk can also be attributed to the commercial viability of traditional fabrics which are not mass produced (United Nations, 1994).

Traditionally, silk has been used by Thais for a variety of cultural purposes. Certain patterns and styles are associated with courtship, engagement, marriage, birth, and death. There are also specific silks for monks and novices, Buddhist festivals such as Org Phansa (the end of Buddhist Lent) and Bun Phraawes (a harvest festival), and spiritual and superstitious purposes (e.g., for protection and exorcism) (Tambiah, 1970; Conway, 1992). Thailand is home to a number of weaving types, patterns, and unique dyes, but the plain weave is the most common type of silk found

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Figure 1. Weaving in Kalasin Province, Thailand.

in Thailand. In this type of weave, weft threads are passed over and under every warp thread. Usually, the warp and weft threads are the same color, but it is not uncommon to find two-tone fabrics that, due to the use of different dyes in the warp and weft, appear to change color depending on the angle from which they are viewed (Conway, 1992).

Thai silk producers are currently in a worrying economic position. The old global Multi Fibre Arrangement (MFA), which expired in 2005, set limits on textile exports to wealthy countries. However, with its expiration, Thailand's National Economic and Social Development Board and The World Bank (2005) warn that Thai silk is highly uncompetitive in comparison to Chinese and other imported fabrics. They estimate that large reductions in labor costs or increases in productivity are needed. Lower labor costs are clearly not a desirable option, and although increases in productivity sound appealing at first, the necessary adoption of hybrid or foreign higher-yield silk would eliminate domestic varieties that are the basis for traditional hand-woven Thai silk products.

In response to these dilemmas, a number of commentators have proposed using the Internet as an effective strategy to bring economic wealth into impoverished regions of Thailand (Sambandaraksa, 2006; United Nations, 2003). Almost a quarter of Thais now have access to the Internet (Dutta & Mia, 2010). The large number of users within the country now makes it more feasible to consider using the Internet as a marketing tool to promote the high quality and uniqueness of Thai silk products, allowing Thai producers to highlight the differences between domestic products and cheaper imports (rather than competing directly with them) (Richards, 1999). The Internet also offers the potential to cut out a number of steps in the silk production chain, reducing the amount of surplus extracted by intermediaries (Benjamin & Wigland, 1995; Javalgi & Ramsey, 2001).

This article focuses first on claims being made about benefits accrued from participating in electronically assisted commerce, as well as on some of the geographic assertions that underpin those claims. More specifically, by examining the Web sites of 97 Thai silk sellers, the article examines claims about who is benefiting from value-chain reconfigurations and compares those claims to insights about the Thai silk industry collected using a series of surveys and in-depth interviews. A particular focus is placed on claims about directness, as well as on the ways in which such claims are used to underpin assertions about benefits to both producers and consumers. The article then compares the discourses about the power of the Internet that are produced and reproduced in the Thai silk industry to silk prices and the wages of producers in order to uncover some of the links between data and discourse.

Commodity Chains

Geography has always played a major (but not absolute) role in influencing which nodes occupy beneficial positions of power. Weavers in the northeast of Thailand (see Figure 2) are geographically distant from primary markets in Bangkok and abroad. Consequently, they rely on intermediaries who serve as a link between themselves and their customers. In this situation, end consumers rarely venture into the spaces inhabited by producers, and

Figure 2. Map of Thailand.

Note: Northeastern Thailand is the region of the map located on the Khorat Plateau. It is bordered by Laos to the north and east, and by Cambodia to the south.

producers likewise rarely enter into many of the spaces of (end) consumption. This lack of spatial proximity between producers and consumers allows intermediaries to pay low wages and charge high prices. Traditional configurations of commodity chains have thus not been kind to producers. Still, there is a hope in the development literatures that, by altering commodity chain structures, the Internet will also transform economic networks and power-geometries within the silk industry.

To "harness globalization" and "reap the benefits of development," two alterations to commodity chains are often proposed: The commodity chain could be disintermediated, thus allowing more surplus to be captured by the producers, or the chain could be reconfigured so that it has a stronger focus on international markets. The term "disintermediation" was used as early as 1981 to describe the bypassing of economic intermediaries (Hawken, 1981). But the term's contemporary significance generally lies in its ability to describe the potential of the Internet to threaten the existence of middlemen, brokers, and intermediaries in any commodity chain, and to reorganize economic spaces and relations—for example, by bringing economic benefits to both producers and consumers (Javalgi & Ramsey, 2001; Couclelis, 2004; Janelle & Hodge, 2000; Tanburn & Singh, 2001; Goldstein & O'Connor, 2000; Gellman, 1996). The ways in which the Internet could potentially impact commodity chains are presented in Figures 3–5.

Figure 3 displays a highly simplified representation of a commodity chain involving Thai silk that is partially sold abroad. There are a number of intermediaries between the producers and consumers. The silk made by producers might be for both domestic and international consumption.

In the context of development debates and programs, disintermediations of commodity chains rely on ideas of respatialization. The Internet is often presented as a way to bring buyers and sellers into a shared virtual marketplace (Graham, 2011). In doing so, both intermediaries and distance are rendered less relevant: Producers can not only sell to consumers without having surplus extracted by intermediaries, but they also can sell to consumers located anywhere on the globe (Graham, 2008).

This can be done in a variety of ways. In a partially disintermediated chain, such as the one displayed in Figure 4, we see a foreign merchant as the link between producers and international consumers. Upstream connections are opened between the

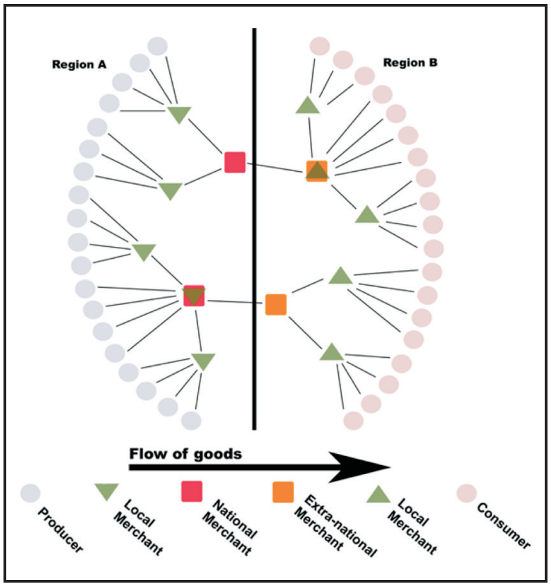

Figure 3. Simplified Representation of a Commodity Chain.

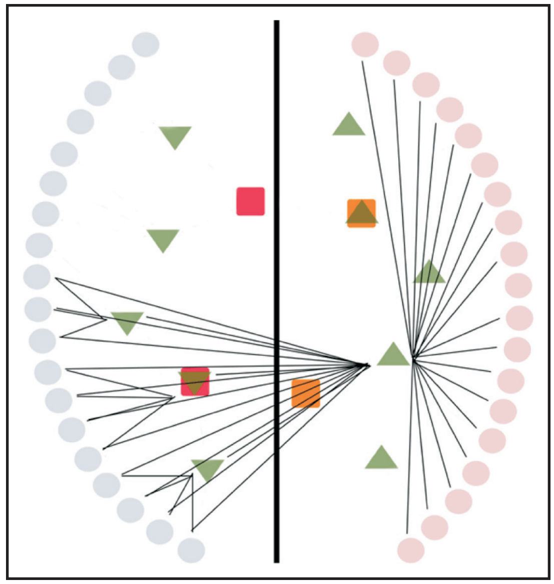

Figure 4. Partially Disintermediated Chain.

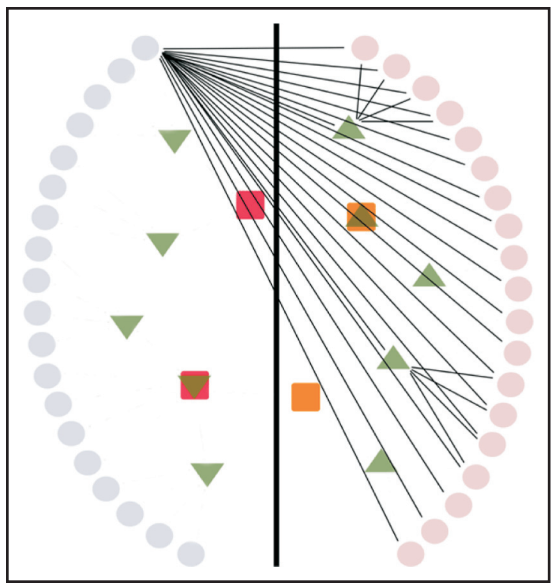

Figure 5. Disintermediated Commodity Chain.

foreign merchant and her suppliers, and downstream connections are opened between the merchant and her customers. In a commodity chain in a full state of disintermediation (e.g., Figure 5), positionality has been fundamentally altered by network connections, and end consumers can buy directly from producers.

These hopes—and the various spatial ontologies upon which they rest—remain largely unexplored and untested. Research on economic development and ICTs has most frequently focused on macro-level characteristics of regions and industries. There is surprisingly little research on the intersections among ICTs, disintermediated and globalized commodity chains, and economic development—and especially little on how these topics pertain to small-scale craft producers. This article focuses on two themes. First, through a detailed content analysis, it focuses on the ways in which sellers of silk themselves describe the benefits of using the Internet to sell silk. Second, it draws on survey data to look at some of the actual benefits of the Internet within the Thai silk industry.

Methodology

This article relies on a content analysis of the Web sites of Thai silk sellers and a series of surveys conducted with two sets of silk sellers: Internet users and non-adopters.

Content Analysis

One hundred thirty-nine Web sites were chosen for inclusion in this project in 2006. These Web sites were discovered by using a variety of keyword searches with the Google search engine. Even though Google by no means offers an unbiased or neutral ranking of pages (Zook & Graham, 2007a, 2007b), highly ranked pages are generally those that are active and receive a relatively large amount of Web traffic (Introna & Nissenbaum, 2000; Lewandowski, 2005). Using this method, most Web sites in existence that sell Thai silk have been incorporated into this study. There are undoubtedly Web sites that sell Thai silk that are not indexed in a search engine. However, there is no effective method to include all those sites in this study.

In performing content analyses of Web sites, some researchers have proposed focusing on only homepages or randomly drawn pages (Haas & Grams, 2000; Koehler, 1999). Weare and Lin (2000) argue that performing a content analysis on an entire site as a whole is unrealistically demanding. However, none of the Web sites within my sample contained an unmanageable number of pages linked from the main index page. I therefore opted to include every page in the study, so as to minimize bias that could arise from using a sampling method.

Of the 139 hyperlinks collected in 2006, only 97 continue to direct to Web sites in 2008.[2] The remaining 42 either returned a "Server not found" message or linked to holding pages hosted by domain registrars. Even in the early days of the Internet, researchers like Bates and Lu (1997) suggested that, due to the dynamism of the Internet, performing research relying on a sample of Web pages is challenging. The amount of turnover is nonetheless surprising, and during my interviews, there were few hints that the scale of failure was so significant.

Surveys

Two sets of sellers were sampled using cluster and convenience sampling methods. One group consists of merchants and silk producers in Thailand who were found without the assistance of the Internet. The initial goal was to enlist 80 "Thai Silk Sellers" from four subgroups:

(a) silk merchants in Bangkok,

(b) silk merchants in Khon Kaen and Nakhorn Ratchasima (the two commercial silk centers of the Northeast),

(c) silk producing firms in Northeast Thailand, and

(d) self-employed silk weavers in Northeast Thailand.

However, once the data collection phase of the project began, it became clear that these subcategories were oversimplifications of the economic activities involved in the Thai silk industry. For example, a number of firms can be defined by both categories (a) and (c). That is, they employ production workers in the Northeast, but they also operate at least one shop in Bangkok. The precise breakdown of respondents is displayed in Figure 6. Location and position were integral to the research design regarding the selection of "Thai Silk Sellers." The initial strategy was to collect information from 20 respondents from each subgroup. Apart from subgroup (d) (self-employed weavers), this task has been achieved.

Every member of this group was asked to complete a survey that covered a variety of topics related to the Internet and silk sales. However, the questions that are most relevant to this article are the questions on silk prices and worker wages. The responses to these questions are discussed in detail later in this article.

Communication difficulties undoubtedly had an effect on much of this research, as many discussions were performed through the filter of an interpreter. The interpreters always spoke the local dialect fluently and, with one exception, they had an extremely high level of proficiency in English. However, as with all communication that takes place in more than one language through an intermediary, there were inevitably misunderstandings. While some of these misunderstandings are undoubtedly embedded in the survey and interview data (especially in open-ended questions where respondents were allowed to answer as they saw fit), I attempted to minimize their effect by asking questions in a slightly different way whenever there appeared to be confusion about what was being asked.

The second group consisted of sellers who were known to use the Internet. All 139 Internet users who have Web sites (discussed in the section on content analysis above), plus an additional 30 sellers who use third-party Web sites (most notably eBay and etsy.com), were contacted via either e-mail,

2. In 2006, all 139 hyperlinks directed viewers to Web sites.

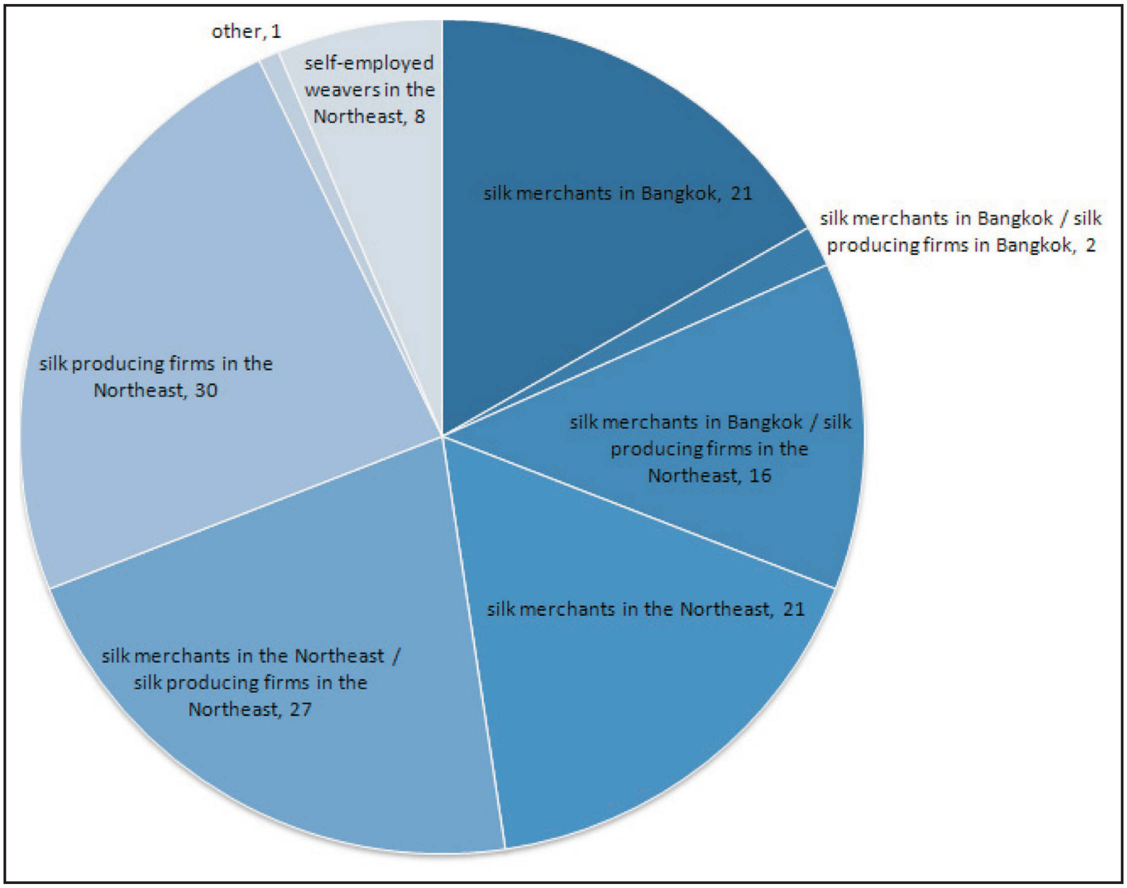

Figure 6. Thai Silk Sellers.
(Total number of Thai silk sellers: 126).

forms on their Web sites, or telephone. They were asked to complete an identical survey to the non-adopters, either online at www.questionpro.com or during a face-to-face meeting. Ultimately, 47 Internet adopters completed a majority of questions in the survey.

The 47 respondents represent quite a low rate of response: 33.8%. Twenty-one e-mails to potential respondents (15.1%) were automatically returned with error messages along the lines of "Your message could not be delivered to one or more recipients." Follow-up e-mails sent over subsequent months were also returned in the same manner. These returned messages are unmistakable signs of businesses no longer in operation. Given the low rate of response, it is likely that a significant proportion of the other Web sites contacted are no longer active, and that they are merely shells of formerly active businesses with unmonitored mailboxes.

Using a combination of both online and face-to-face surveys was necessary to obtain a sample of the two groups. However, using two fundamentally different methods of data collection opens up the possibility that biases might have been introduced into the results. While there are no indications of any specific biases, it nonetheless remains important to interpret the results with an appropriate amount of caution.

Benefits of Buying Silk

Every Web site was coded for any claims related to the potential benefits of buying silk. A pilot content analysis of silk Web sites suggested that two main themes are present. Some sellers claim that buying their silk is of particular benefit to the buyer (as opposed to purchasing silk from another source), while others highlight the benefits that accrue to producers of silk. Web sites were only coded as containing claims to help consumers or producers if such statements were made directly. Web sites that hinted at benefits that could be accrued to consumers or producers (but did not directly state that they provided such benefits) were not included into this coding scheme.

Of the 97 Web sites, 15 make a claim to be helping customers, 21 claim to help producers, and three claim to help both customers and producers. The remaining 57 make no textual reference to benefits that could be obtained by customers or producers due to the buying (and selling) of silk.

Benefits to Customers: Directness

Claims to help customers were often related to the theme of disintermediation. A variety of words suggestive of spatial proximity and positionality were used by members of the group claiming to help customers. The most commonly used word, though, was "direct." A selection of words relating to altered spatial positionalities is bolded in the following quotations (all capitalizations are present in the original texts):

> *Most [pieces of silk] are acquired **directly** from the artists or workshops that produce them. This allows us to offer lower pricing and provides greater control over the quality and designs of the products. [asianartmall.com]*

> *The crafts that you see on our site are supplied **direct from source** which helps us to keep our prices very competitive, against other Thai and non Thai suppliers. [chiangmaicraft.com]*

> *Asian Silks deals **direct** with the manufactures in CHINA and THAILAND. **We cut out the middle man** (several) and pass the SAVINGS on to YOU! We are constantly updating our website to bring you NEW STYLES and products. We have satisfied thousands of people from all over the world. [asiansilks.com]*

> *So that we can ensure to all buying agents or any other international traders that you are now getting **in touch directly** with the manufacturer online right now [dechsuwan.com]*

> *We Will Ship It To Your Doorstep. Our Factory **Direct Contacts** Give Us Immense Bargaining Power And We Pass On The Benefits To You. [kaisilver.com]*

> *Orientations is committed to offering clients quality products at a fair price . . . Wherever possible we buy **directly** from craftsmen and ethnic minorities in the villages . . . [orientations-online.com]*

> *By buying **direct** from foreign loomers we save you from 30% to 50%. We have **no in-betweens** which add to the cost of your fabrics. [thaisilks.com]*

The heavy focus on the idea of "directness" is noteworthy, especially because only one of the firms using the idea of "directness" is an actual producer of silk. By employing the word "direct," firms are suggesting not only that an Internet-enabled disintermediation of a more complex commodity chain is a possibility if customers purchase their silk, but also that such chains allow silk to be sold for a cheaper price because less profit is extracted throughout the chain (in comparison with more traditional chains).

Benefits to Producers: Proximity to Markets

A focus on proximity is also present in some of the Web sites of sellers that claim to help producers. The following is a selection of quotations from some of those Web sites (again with words relating to altered spatial positionalities bolded):

> *World of Thai Silk online fabric shop **connects you directly** to Thailand's rural village weavers as well as the wholesale fabric of the largest weaving mills. No matter how **distant** you are from these villages, now you have **access** to them online. [bangkok-thailand.com]*

> *We also aim to provide a platform for the skillful Thai craft people. Many of those live in **remote villages** and do not have **access to the world market.** [thailandfashion.net]*

> *We **make the world smaller** than ever so you can **reach** Thailand everywhere you are. [thaisilversilk.com]*

> *It is hoped that an **expanded market** for their silk craft can be developed. We are encouraging the female weavers to produce more of their "folk art" silk for a **market previously beyond their reach.** [thaivillagesilk.com]*

> *We purchase our products as **close to the original source** as possible to keep prices down and*

provide more capital to those who make them. [siamese-style.com]

However, a craft passed down through generations was all but abandoned due to ***lack of direct markets*** *and exploitation by unscrupulous buyers . . . Village destitution was to be dispelled beginning with the initial visit of Léa Laarakker Dingjan in 1985 and would lead to the establishment of Ban Reng Khai Foundation in 2001. [banrengkhai.com]*

During this time there were no other health facilities in this area. Indeed there were no roads and the only ***access*** *available was by boat, elephant or a trek on foot [until . . .] with SIDA assistance, Kent started a textile weaving and basket making project. [sopmoeiarts.com]*

There remains a focus on disintermediation, as can be seen in the way "directness" is used. The word "direct" is used again to imply that less surplus can be extracted by intermediaries. However, in contrast to the previous examples, the focus in these comments is on the idea that disintermediated chains naturally provide the greatest benefits to producers.

Among this group there is also a broader range of geographic words used to convey altered economic positionalities (as compared to the group that claims to be helping customers). These sellers also talk about access (both from consumers to producers, and from producers to consumers/markets), reach, and closeness. The difference is noteworthy because these terms expand on ideas of disintermediation and directness. In such formulations, the sellers operating the Web sites present clear links between ideas of a universally accessible, virtual world market and disintermediation. Buying from a seller owning a Web site is presented as a way to "reach" or "access" producers that have been brought into a virtual marketplace.

Benefits: Unique Opportunities

A trope of exceptionalism can also be found in the Web sites that were analyzed. Some of the firms and NGOs with Web sites hint at the idea that they are doing something few other sellers in the Thai silk industry are attempting. That is, they imply that a combination of their 1) care and concern for the producers of silk and 2) commodity chains that are configured differently than the majority of silk commodity chains in Thailand are unusual in the Thai silk industry. In some cases, this is clearly stated:

There are plenty of retail and wholesale outlets here in Thailand selling to visiting travelers and merchants. Few have an eye for quality. Few have interest in the welfare and well being of the artists and craftspeople who create the unique Thai wares. [exporthai.com]

However, even when differences between sellers that operate Web sites and other sellers in the Thai silk industry are not clearly stated, by simply stating that they are doing something (i.e., demonstrating concern for producers and disintermediating commodity chains), there can be an underlying assumption that others are not.[3]

Exceptionalism is also present in a temporal sense. In the preceding quotations, sellers refer to altered positionalities brought about by the Internet as a particularly new phenomenon, either by using words such as "now" and contrasting the present to a past in which weavers were more likely to be exploited (see the above bangkok-thailand.com quotation as an example) or by simply employing words such as "previously" to imply that the present is different.

In many cases, then, there is a focus on disintermediation and altered positionalities, along with a suggestion that altered positionalities are unique and different from the commodity flows that characterize other sellers. Yet, it should not be forgotten that the majority of Web sites makes no such claims. The lack of clear claims on most Web sites about benefits being accrued by producers does not mean there are not more subtle ways of suggesting that producers are being helped by the sale of silk. Specifically, the use of words or images that represent the rural, the village, and the traditional can all be used as substitutes for more pointed statements about why buying silk benefits producers.[4] It is impossible to know with complete certainty how the designer of each Web site intended every photo and description to be interpreted. However, some

3. Advertising any particular features or characteristics of a firm or business model is often suggestive that all (or most) other firms or business models are different.

4. During the content analysis, I was able to identify photographs of sites of production on 25 Web sites. However, it should again be pointed out that this number does not speak to the intentionality behind the display of these images.

Table 1. Mean Prices of Silk.

Unit of measure	Web site: Mean price from sellers that have Web sites	No Web site: Mean price from sellers that do not have Web sites
Plain two-ply silk (per meter)	฿587	฿306
Mudmee silk (four meters)	฿4,314*	฿2,406

**The figure becomes ฿2,229 if the highest value is removed from the dataset*

designers do intend imagery of rural weaving life to convey, to potential customers, a sense that buying silk is beneficial to the producers. Such sentiments were expressed in an interview with one seller when I asked him about his Internet strategy. He commented that "we photograph people making the silk [in Northeastern villages]. We get these pictures online because we want to get a sympathy vote out there."

Links Between Data and Discourse

It has been shown that many of the Web sites belonging to sellers that sell silk present themselves as providing benefits (economic and social/cultural) to producers and/or consumers. It is therefore fitting to briefly examine the basis of these claims. Specifically, with regard to claims about economic benefits made by sellers, I was able to obtain information about prices of silk and wages paid to staff from many of the sellers who completed surveys. This allowed me to look at whether sellers with Web sites were, indeed, paying more and charging less for their silk.

Prices

Willing sellers revealed the prices of a number of items that they sold in their shops or on their Web sites. This information was then placed into categories to compare prices among sellers. Placing visual and verbal information about the cost of silk into standardizable categories proved to be somewhat problematic. Given the variety of silk sold within Thailand, it was difficult to select categories of silk prices that were broad enough to allow comparison, but specific enough to be meaningful. The final list of categories selected is as follows: ties, plain one-ply silk, plain two-ply silk, plain four-ply silk, cheapest four-meter mudmee[5] silk on sale, most expensive four-meter mudmee silk on sale, cheapest praewah[6] silk on sale, and most expensive praewah silk on sale. Following each survey or interview, relevant pricing information from any seller was placed into the most appropriate category.[7] For sellers with Web sites, pricing data was collected directly from each Web site.

Despite the attempts to minimize the number of categories, most categories contain too few observations in the group of sellers with Web sites. Only two categories contained any meaningful amount of samples: plain two-ply silk (12 observations among sellers with Web sites, and 37 observations among sellers who do not have Web sites) and cheapest four-meter mudmee on sale (nine with Web sites and 46 who do not have Web sites)[8]

5. Mudmee is a special type of silk created by tie-dying the weft yarn into distinct patterns prior to the weaving process.

6. Praewah is another special type of silk created through a combination of continuous supplementary weave and discontinuous supplementary weave (giving the impression of an embroidered pattern even though the raised patterns are woven into the silk).

7. During fieldwork, there was a significant amount of confusion during discussions about lengths of fabric. Plain silk was always sold in meters. However, when selling pieces of mudmee, praewah, or other types of silk, some people used yards (although most people still used meters) (1 meter = 1.09 yards). Discussions were complicated by the fact that some people used the term meter when their fabric was actually measured in yards, and some used the term yard when their fabric was actually measured in meters. Furthermore, some people would state that a piece of fabric to be a certain length only for it to actually be slightly longer or shorter (by a few centimeters). Unlike plain silk, which is sold by the meter, mudmee and praewah are usually sold on a per-piece basis, making the precise length less relevant. For ease of discussion, pieces of mudmee and praewah that are four meters long and measured in meters or yards have all been labeled as "four-meter mudmee" and "four-meter praewah," even though a more accurate description would be "mudmee/praewah between 4 and 4.36 meters in length."

8. These two types of silk are probably the two most commonly found varieties in Thai silk shops.

(see Table 1). Among sellers with Web sites, the mean price of plain two-ply silk is ฿587.[9] Contrary to claims made on some Web sites, the mean price of plain two-ply silk among sellers who do not have Web sites is much lower. At ฿306,[10] the average price of plain two-ply silk from sellers without cyberpresence is almost half that of sellers with Web sites (52% of the amount, to be precise).

Similar results are seen when examining the prices of mudmee silk. The mean cost of the lowest-priced four-meter piece of mudmee from sellers with Web sites is ฿4,314.[11] Again, when looking at sellers who do not have Web sites, the mean cost of silk is approximately half (56%) of the cost of buying from those with Web sites (฿2,406).[12] However, if the highest value (฿10,000 for a piece of mudmee) is taken away from the group of sellers with Web sites, the mean cost of mudmee from sellers with Web sites becomes ฿2,229, a figure similar to the average cost of mudmee from sellers who do not have Web sites.

Silk pricing can also be examined through a question that was asked of all survey respondents with Web sites. Sellers were asked, "Would an item that you sell on the Internet sell for a different price than the same item not sold on the Internet?" Out of 43 respondents, 24 respondents (56%) stated that their pricing of silk did not vary based on the sales channel. Eight respondents (18%) mentioned that they did sell silk for lower prices to Internet customers, and interestingly, 11 respondents (26%) noted that having a Web site allowed them to sell silk at higher prices.

Two themes emerged for having a higher price listed on the Internet. First, there is the idea that selling online is a value-added service that benefits customers. A merchant in Bangkok, for example, told me that selling online "is an extra service that I give to customers, so customers should pay for being able to easily find and buy silk instead of coming to this market." Another theme is that selling via the Internet actually incurs higher costs than face-to-face transactions. A representative[13] of a New York-based intermediary noted that face-to-face transactions from other outlets could be cheaper because online "sales require sales tax collection. Silk price may be reduced in person as forums like eBay will not be receiving listing fees and commissions (nor will PayPal)." Other sellers mentioned shipping fees as being the major factor driving up costs.

Two themes also are present in the comments of sellers who state that the Internet allows them to sell for a lower price. The first is that many of the costs associated with traditional bricks and mortar retailing are irrelevant to Internet sales. One Bangkok-based eBay seller stated, "[T]he cost is cheaper, as I can save the expenditure on physical shop rent, fax/telephone, and salary of a shop keeper." Finally, there was the idea that selling through the Internet lowers prices because it attracts wholesalers who buy in bulk. For example, the sales manager of a Bangkok-based producer and merchant responded that "we discount prices by 10 to 30% when selling online because it is usually only wholesale sellers who spend a lot of money that get in touch with us [through the Web site]."

In the discussions of lower prices on the Internet, not one person brought up the theme of directness. There were similarly no mentions of disintermediated, unimpeded chains, allowing more value to be passed on to customers. In fact, the logic for lower prices is grounded in precisely the opposite phenomenon: Instead of selling to end consumers in order to reduce costs (and consequently prices), sellers are finding other intermediaries and negotiating bulk discounts with them.

Low sample sizes and categorization issues, due to the nonstandardizable nature of silk, mean that pointed conclusions are difficult to make from these data. Furthermore, online and offline sellers are reaching out to different groups of customers, so silk cannot be compared solely in monetary terms. Yet one point is clear: In contrast to claims being made by many sellers with Web sites, there are no clear indications that the Internet or potential

9. The range of values is ฿250–1,400 per meter. The standard deviation is ฿312.
10. The range of values is ฿150–1,000 per meter. The standard deviation is ฿179.
11. The range of values is ฿1,420–21,000 for a four-meter piece. The standard deviation is ฿6,280.
12. The range of values is between ฿1,500–10,000 for a four-meter piece. The standard deviation is ฿1,813.
13. The representative filled out the survey online and did not supply any personal contact details. The representative was initially reached through an e-mail to an address listed on the company Web site).

disintermediations of commodity chains are resulting in lower prices for customers.

Wages

The notion that the Internet will allow more capital to reach the producers of silk is both powerful and compelling. The idea that disintermediation and directness will financially benefit producers is suggested or stated both on Web sites that sell Thai silk, and in literature about the uses of ICTs in a development context. Yet only one of the Web sites included in this study offered any specific details about economic benefits accrued by producers as a result of their involvement with commodity chains linked to Web sites.[14] Comments are, instead, always phrased in a more ambiguous manner. For example, on www.ttctafts.co.th, it is stated that "the main goal is to pay the producers the highest price as possible and sell the products at a price that is just adequate to meet expenses." The statement implies that producers are benefiting more from sales at ttcrafts.co.th than from sales through more traditional outlets. However, no information is provided (on ttcafts.co.th or on any of the other Web sites) to support these assertions. Therefore, it is useful to examine these claims by reviewing prices that sellers pay to purchase silk from producers.[15]

Before a discussion of results, some of the problems inherent to these data are highlighted. First, there is rarely a sole producer of a piece of fabric. A weaver turns thread into cloth and often dyes the silk herself, but uses thread that has been spun by someone else. Similarly, the person turning raw silk into thread is using raw silk produced by a person who (or company that) extracted it from silkworm cocoons.[16] I did obtain salary information about a variety of positions in the production processes of silk; however, weavers are the only group about whom I have a significant amount of wage data. The following discussion thus only involves money earned by weavers in exchange for their labor.

Second, wage data were provided to me in a variety of forms. Some salaries were reported by the day, week, or month, while others were stated by the piece or meter.[17] The temporally structured data were consolidated into a weekly salary category. Anecdotal evidence from my time in the northeastern region of Thailand suggested that most weavers take one day of rest every week. As such, I multiplied all daily salaries by six to bring them into the weekly category. Monthly data were divided by 4.35[18] to structure them by the week. In some cases, it was possible to translate the per-piece salary data into the weekly salary data (for example, if it was reported that weaver A is paid X baht per piece and can make Y pieces in a week). Many respondents were uncertain about the number of pieces produced in any given time period, and in such cases, I left the per-piece salary information in its own category.[19]

In addition to the weekly salary category, only one of the per-piece categories ("price paid per meter of plain two-ply silk"),[20] contained more than a few responses from sellers who have Web sites.

14. The Web site Siamese-style.com claims that "When a piece is sold, 50% of the profit goes to the weavers and 50% goes to continue the operation of Siamese Style."

15. All sellers who completed surveys were asked about the prices they pay to purchase silk from other intermediaries or producers.

16. The chain can, of course, be traced even further back by looking at the growers of mulberry plants to feed the worms.

17. Although it would have been possible to request that all sellers report wage data to me in a standardized fashion, I preferred asking respondents to report the information in the manner most comfortable to them in order to minimize potential inaccuracies.

18. This figure was obtained by taking the average number of days in a year (365.25) and dividing it by the number of months in a year (12) to obtain the average number of days in a month (30.44). This figure was then divided by seven (the number of days in a week) to obtain the average number of weeks in a month (4.35). This method does not take into account public or private holidays, and it is therefore possible that the monthly data are slightly higher than they should be. Still, anecdotal evidence again suggests that few public holidays (other than Songkran, the Thai New Year) are used by weavers. As such, I decided to keep the figure at 4.35 instead of altering it to account for holidays.

19. A number of "per piece" categories were created for each of the silk types discussed in the pricing section of this article (ties, plain one-ply silk, plain two-ply silk, plain four-ply-silk, cheapest four-meter mudmee silk on sale, most expensive four-meter mudmee silk on sale, cheapest praewah silk on sale, and most expensive praewah silk on sale).

20. Very few weavers of plain two-ply silk are paid by the hour, day, week, or month; instead, they are most often paid by the meter.

Table 2. Mean Wages.

Unit of measure	Web site: Mean wage for weavers working for sellers that have Web sites	No Web site: Mean wage for weavers working for sellers that do not have Web sites
Plain two-ply silk (per meter)	฿23	฿25
Weekly salary	฿1,103	฿959

Even the two categories examined in this article are characterized by extremely low response rates from sellers with Web sites. In the category of "price paid per meter of plain two-ply silk," there are 29 responses from sellers who do not have Web sites, but only six responses from sellers who do have Web sites. The response rate is slightly higher in the "weekly salary" category (49 responses from sellers who do not have Web sites, and 11 responses from sellers with Web sites).

Finally, it is important to note that data about wages and prices paid were not obtained from workers themselves. It is entirely possible that discrepancies exist between actual and stated amounts paid. While it would have been preferable to interact directly with workers to ascertain specific wages that are paid, doing so would have put the worker in an awkward position. I therefore opted to only speak with company managers about wages paid.

Looking at the data, having a Web site seems to make little difference to the price paid per meter of plain two-ply silk (see Table 2). The mean price paid by sellers who do not have Web sites is ฿25 per meter, while the same figure for sellers who do have Web sites is ฿23 per meter. When looking at mean weekly salaries, it can be seen that weavers working for sellers who have Web sites do earn a slightly higher wage (฿1,103 per week) than weavers working for sellers who do not have cyberpresence (฿959 per week). This lends support (albeit weak support) to the idea that sellers with Web sites are able and willing to pay the producers of silk higher wages.

The fact that only 47 respondents with Web sites are included in these statistics makes it challenging to infer any causal effects from the data. Even though the data provide mixed indications that sellers with Web sites are likely to pay weavers a higher-than-average salary (due to directness, disintermediation, or any other reason), it is conceivable that claims about the benefits of the Internet to producers (i.e., that buying from Web sites allows more capital to directly reach producers) are in various cases being realized. However, even if such claims are being realized, the benefits accrued to weavers do not appear to be particularly large. The results presented in this article indicate that, even if there are weavers associated with Internet adopters who are benefiting financially, such instances are not characteristic of the distribution of capital in all cases. Or, in other words, if the Internet is benefiting weavers, the benefits are not occurring on an industry-wide basis.

Conclusions

This article demonstrates that claims are being put forward that direct producer-to-consumer commodity chains benefit and empower producers. The content analysis has shown that a variety of discourses are present on the Web sites of producers and merchants selling silk. Notions of altered spatial positionalities are a particularly prominent feature of many Web sites. The idea of "directness" is used to represent potential economic benefits of disintermediated chains that can be accrued by consumers. The idea of "directness" is also used by sellers to highlight potential benefits of disintermediation to producers of silk. Other terms found on Web sites of silk sellers, such as "access to markets" and "reach," put forward the idea that the Internet is bringing producers and consumers into a single, virtual marketplace. These themes mirror many of the claims made by commentators within the wider development literatures. Economic integration and increased connectivity are presented as being both increasingly possible due to the space-altering abilities of the Internet, and as inherently beneficial to all involved (non-intermediary) actors.

I had originally assumed that claims of directness would be used to lend support to development programs; that is, I hypothesized that there would be government and NGO programs that attempted to reduce the amount of surplus extracted by intermediaries. While such programs do exist, it is ironic that the discourse of directness is employed mostly on the Web sites of commercial intermediaries.

A majority of Web sites make no claims about disintermediation or reconfigured positionalities. Nonetheless, the claims made about directness are far from insignificant. The claims are possibly reflective of widely circulating discourses about the links between disintermediation and development. Even on Web sites that do not clearly point out their facilitation of direct links between producers and consumers, other elements (such as photographs of producers or the sites of production) can more subtly make the same claim.

Finally, this article examined claims that direct chains result in less profit being captured by intermediaries (yielding cheaper silk for consumers and higher salaries for producers) and compared them against pricing and salary data collected from surveys and Web sites. There is no convincing evidence that prices are lower online than offline. There are hints that salaries of producers for sellers with Web sites might be higher than salaries of producers for sellers who do not have Web sites; however, the data are not convincing, comprehensive, or able to prove causal relationships.

Discourses about benefits accrued to either producers or consumers are only clearly and unambiguously projected from a minority of Web sites, but because of more subtle ways of projecting statements about benefits (to either producers or consumers), it is difficult to fully know how widespread intentionality behind discursive constructs about benefits is. Ultimately, this article shows that the idea of disintermediation (or directness) is used as a base from which other, more powerful claims are made. Claims are constructed that altered chain topologies will necessarily result in an accrual of economic and cultural benefits for producers and/or consumers. But, looking specifically at weavers, this article has demonstrated that there is little proof that the integration of the Internet into commodity chains provides tangible economic benefits to weavers.

It is thus important to recognize major forces, such as the role of labor and local, national, and extra-national states, that may influence relationships within commodity chains (Smith et al., 2002). This should be done while paying attention to the specific degrees, sorts, and gradations of power, and to the grounding and location of profits within any chain (Raikes, Jensen, & Ponte, 2000). Due to the lack of longitudinal data, it is unclear whether claims made about directness and proximity will ultimately translate into tangible benefits to producers, or whether intermediaries will continue to capture the bulk of benefits on virtual and nonvirtual chains. In either case, it is clear that, while the Internet might be a prerequisite for altered flows of value through commodity chains, it is certainly not a determinant of such changes. ■

References

Bates, M. J., & Lu, S. (1997). An exploratory profile of personal home pages: Content, design, metaphors. *Online and CDROM Review, 21*(6), 331–340.

Benjamin, R., & Wigland, R. (1995). Electronic markets and virtual value chains on the Information Superhighway. *Sloan Management Review, 36*(2), 62–72.

Charsombut, P., & Islam, R. (1992). Adoption and diffusion of new technology in cottage industries of rural Thailand: A case study of basketry and silk. In R. Islam (Ed.), *Transfer, adoption, and diffusion of technology for small and cottage industries,* (pp. 256–282). Geneva: International Labour Organization.

Conway, S. (1992). *Thai textiles.* Bangkok: River Books Press.

Couclelis, H. (2004). Pizza over the Internet: E-commerce, the fragmentation of activity and the tyranny of the region. *Entrepreneurship & Regional Development, 16,* 41–54.

Dutta, S., & Mia, I. (2010). The global information technology report 2009–2010. World Economic Forum, Davos, Switzerland.

Gellman, R. (1996). Disintermediation and the Internet. *Government Information Quarterly, 13*(1), 1–8.

Goldstein, A., & O'Connor, D. (2000). E-commerce for development: Prospects and policy issues. Paris: OECD Development Centre.

Graham, M. (2008). Warped geographies of development: The Internet and theories of economic development. *Geography Compass, 2*(3), 771–789.

Graham, M. (in press). Time machines and virtual portals: The spatialities of the digital divide. *Progress in Development Studies.*

Haas, S. W., & Grams, E. S. (2000). Readers, authors, and page structure: A discussion of four questions arising from a content analysis of Web pages. *Journal of the American Society for Information Science, 51*(2), 181–192.

Hawken, P. (1981). Disintermediation: An economics buzzword that neatly explains a lot of the good that is going on. *The Coevolution Quarterly, Spring,* 6–14.

Introna, L. D., & Nissenbaum, H. (2000). Shaping the Web: Why the politics of search engines matters. *The Information Society, 16,* 169–185.

Janelle, D. G., & Hodge, D. C. (Eds.). (2000). *Information, place, and cyberspace: Issues in accessibility.* Berlin: Springer.

Javalgi, R., & Ramsey, R. (2001). Strategic issues of e-commerce as an alternative global distribution system. *International Marketing Review, 18*(4), 376–391.

Koehler, W. (1999). An analysis of Web page and Web site constancy and permanence. *Journal of the American Society for Information Science, 50*(2), 162–180.

Lewandowski, D. (2005). Web searching, search engines and information retrieval. *Information Services & Use, 25,* 137–147.

Ohno, A., & Jirapatpimol, B. (1998). The rural garment and weaving industries in Northern Thailand. In Y. Hayami (Ed.), *Toward the rural-based development of commerce and industry: Selected experiences from East Asia,* (pp. 131–159). Washington, DC: The World Bank.

Raikes, P., Jensen, M. F., & Ponte, S. (2000). Global commodity chain analysis and the French *Filière* approach: Comparison and critique. *Economy and Society, 29*(3), 390–417.

Rani, S. G. (1998). *Sericulture and rural development.* New Delhi: Discovery Publishing House.

Richards, G. (1999). Culture, crafts, and tourism: A vital partnerhip. In G. Richards (Ed.), *Developing and marketing crafts tourism,* (pp. 11–35). Arnheim, Netherlands: ATLAS.

Sambandaraksa, D. (2006, March 18). Bringing the market to the village. *Bangkok Post,* 1.

Smith, A., Rainnie, A., Dunford, M., Hardy, J., Hudson, R., & Sadler, A. (2002). Networks of value, commodities and regions: Reworking divisions of labour in macro-regional economies. *Progress in Human Geography, 26*(1), 41–63.

Tambiah, S. J. (1970). *Buddhism and the spirit cults in Northeast Thailand.* Cambridge: Cambridge University Press.

Tanburn, J., & Singh, A. D. (2001). ICTs and enterprises in developing countries: Hype or opportunity? In *Series on innovation and sustainability in business support services (FIT).* Geneva: International Labour Organisation.

Thailand's National Economic and Social Development Board and The World Bank. (2005). *Thailand Northeast Economic Development Report.* Bangkok: Thailand's National Economic and Social Development Board and The World Bank.

United Nations. (1994). *Silk in Asia.* Bangkok: The Economic and Social Commission for Asia and the Pacific.

United Nations. (2003). *Poverty reduction practices: Information and communication technology for rural poverty reduction. Committee on Poverty Reduction.* Bangkok: United Nations Economic and Social Council. Available at: http://www.unescap.org/pdd/CPR/CPR2003/English/CPR_4E.pdf

Weare, C., & Lin, W. (2000). Content analysis of the World Wide Web. *Social Science Computer Review, 18*(3), 272–292.

Zook, M., & Graham, M. (2007a). The creative reconstruction of the Internet: Google and the privatization of cyberspace and DigiPlace. *Geoforum, 38,* 1,322–1,343.

Zook, M., & Graham, M. (2007b). Mapping DigiPlace: Geocoded Internet data and the representation of place. *Environment and Planning B: Planning and Design, 34*(3), 466–482.