Udderly Fantastic: A Social Website for the Australian Dairy Industry

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Abstract
The focus of this paper is a social web site, Udderly Fantastic, that has been developed and implemented for the Australian dairy farming industry with the overarching goal of providing ‘a place for dairy-minded people to creatively celebrate the business.’ The aim of the study is to examine how an industry-wide social web site contributes to the creation of a sense of community amongst its members. The findings show that a vibrant community has developed with evidence of the accumulation of social capital benefiting the members. They also include the identification of the benefits of the social community to both members and other stakeholders. Thus the study contributes to a greater understanding of the value of social web sites (SWS) in an industry setting. Implications for practice and research are briefly discussed and further research paths are identified.

Keywords
Social Web Sites, online communities, dairy farming, social capital.

INTRODUCTION

While online communities have been in existence for many years (Rheingold 2008), the term Social Web Site (SWS) coined by Kim, Jeong & Lee (2010), extends the meaning of such communities to include a range of interactivity and communication methods based on user created content. Embedding social media applications within a community web site enhances the way that community members can function and offers new levels of interaction, connection and communication (Correa et al. 2010). Boyd & Ellison (2008) have noted a sharp increase in the number of dedicated social networking sites since 2004. Sites such as FaceBook and Bebo have been largely populated by younger generations (Pascu 2008) although there is evidence that older people are engaging more readily with the technology (Erikson 2011). Sites like FaceBook are not communities of themselves, but they provide the ability for millions of users to communicate with a range of contacts for a variety of reasons (Kim et al. 2010). This results in the forming of online communities as people seek to engage more readily with the technology (Erikson 2011). Kim et al. (2010) define social Web sites as “those Web sites that make it possible for people to form online communities, and share user-created content.”

The focus of this paper is a SWS, Udderly Fantastic, that has been created for the Australian dairy farming industry with the overarching goal of providing “a place for dairy-minded people to creatively celebrate the business” and share enthusiasm and pride in “all the fantastic things about dairy” (UdderlyFantastic.com.au). The aim of the study is to examine whether an industry-wide social web site can facilitate the creation of a sense of community amongst its members. This is seen as particularly important in a sector that is facing considerable challenges arising from the reduced economic and social prominence of farming which has led, in turn, to low morale amongst farmers and a sharp decline in the number of farms (Productivity Commission, 2005). The contribution is to provide greater understanding of the value of SWSs in an agricultural industry setting, in particular providing insights into how members’ activities may benefit both individuals and other stakeholders. The paper examines how a ‘sense of community’ can be identified through the recognition of social capital as a community resource that enables members of the community to draw upon and add value to their continued interaction (Hofferth et al. 1999). The paper is structured as follows: first it discusses the development of SWSs and online communities, which is followed by an examination of the concepts of community and social capital. The case is set within the context of the dairy industry and findings and discussion are followed by conclusions and a consideration of the implications for practice.
WHAT ARE SOCIAL WEB SITES?

The idea that communities can flourish in the online environment dates from the early 1990s (Rheingold 2008). Subsequent research into online communities has been prolific and the more recent developments in social media have resulted in a creation of terms such as online communities, social media, social networking sites and communities of practice (Kim et al. 2010; Preece 2000; Wenger & Snyder 2000). These terms have overlapping similarities and are often used interchangeably, although there are subtle differences. For example, the term ‘online community’ means different things to different people (Preece 2000) and is an imprecise term that lacks a defined meaning even amongst sociologists (Jones 1997) although there is consensus that it involves a group of people sharing a common interest. One concise definition of online communities is that “they involve a collection of people who communicate and interact openly with each other in a computer-supported virtual space to seek some shared purposes, which is guided by a set of community policies and rules” (Phang et al. 2009, p 722). Motivations to participate in such communities have been found to be access to information, friendship and social interaction (Ridings & Gefen 2004) while Wang & Fesenmaier (2003) also see a need to belong, emotional support and hedonic gains as important.

Community of Practice (CoP) is a term that has resonance in organizations and across professions and differs from the more general online communities in its focus on knowledge exchange. Wenger (2002, p4), defines a CoP as a group of people “who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis”. In CoPs members are strongly motivated by the exchange of knowledge (Wenger 2002), while for online communities social and hedonic needs are the key motivating and sustaining factors (Wang & Fesenmaier 2003). In their study of an advanced practice nurses’ CoP, Hara and Hew (2007) note that social interaction is minimal with the nurses’ exchange of knowledge being a primary motivator for participation. Motivations for participation in Wasko and Faraj’s (2005) study do include a sense of enjoyment in sharing knowledge, but they also include contribution to the common good and professional esteem as reasons for sharing.

More recently the terms social networking and social media have arisen to reflect the fast paced growth of Web 2.0 applications and the creation of social networking sites (SNS) such as FaceBook and LinkedIn (Boyd & Ellison 2008). SNSs are “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system.” (Boyd & Ellison 2008, p 211). Social media has become a catch-all term to describe social interchange that is usually facilitated by Web 2.0 applications. Kaplan and Haenlein (2010 p61) see an important feature of social media to be that it allows for “the creation and exchange of User Generated Content”. Both SNSs and online communities are used to stay connected with established friends and/or to connect with acquaintances through established links. A fine distinction between them lies in the focus of online communities on a common interest facilitated through communication and the exchange of information (i.e. multi-way interaction). SNS communications may not be reciprocal or informative and there is a greater tendency to focus on self rather than the common interest of a community membership.

The term social web site (SWS), as provided by Kim et al. (2010), provides an overarching concept that is used to describe websites “that make it possible for people to form online communities, and share user-created content” (Kim et al. 2010, p216). In essence, SWS incorporate elements of social networking sites, social media and online communities, although there are indications that they span into CoPs as organisations begin to create sites that reflect the features of SWSs (Majchrzak et al 2009).

Table 1: Features of Social Web Sites (drawn from Kim et al. 2010)

<table>
<thead>
<tr>
<th>Key features</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal profiles</td>
<td>Individual, personalised homepages with a personal profile for each member</td>
</tr>
<tr>
<td>Establishing online connections</td>
<td>To make connections to existing group members – a ‘friending’ facility</td>
</tr>
<tr>
<td>Participating in online groups</td>
<td>Members able to explicitly form new groups and/or join them</td>
</tr>
<tr>
<td>Communicating with online connections</td>
<td>Tools for communication such as email, instant messaging, texting, bulletin boards</td>
</tr>
<tr>
<td>Sharing user created content (UCC)</td>
<td>Members can post and access others’ contributions through blogs, photos, videos</td>
</tr>
<tr>
<td>Expressing opinions</td>
<td>Leave comments on UCC contributions</td>
</tr>
<tr>
<td>Finding information</td>
<td>Search engine and browsing facilities within the site</td>
</tr>
<tr>
<td>Holding the users</td>
<td>Features to engage the user and encourage return visits e.g. designated popular or recent items or linking similar videos</td>
</tr>
</tbody>
</table>
Online social interaction in the agricultural sector is not well represented in the literature and there is some consensus that the adoption of information technology in farming lags behind other industries (Thysen, 2000). However, the need for rural societies to develop cohesive communities with a strong identity and sense of belonging is highlighted as a necessity for long-term sustainability in Australia (Smailes 2010). Social web sites may provide part of the solution in maintaining such communities.

COMMUNITY AND SOCIAL CAPITAL

The notion of community is an abstract social construct and the term is often used with little qualification (Mansuri and Rao, 2003). Studies into the meaning of community stem from the formalisation of sociological research in the late 19th century (Bbruhn 2004) and have evolved over time. Use of the Internet has provoked broader views of what is meant by community with researchers moving towards a view of the community as a network unconfined by spatial boundaries (Castells 2004; Wellman 2005). A view of individual community membership is offered by McMillian and Chavis (1986) who attempt to describe a “sense of community” and then propose a model derived from an individual’s feeling about community being based on membership, influence, integration and shared emotional connection. This perspective is captured in Portes’ (1998) and Bourdieu’s (1985) discussions of social and other forms of capital as a method of measuring an individual’s advantage that derives from their social relationships. If such attributes as influence, integration and shared emotional connection are the contribution of individuals then understanding community members’ actions becomes an important facet of why a community would exist and develop. When considered with the notion of social capital it seems possible to claim a connection between them, with a “sense of community” being a precursor to the development of social capital. In an examination of the issues in social computing, Parameswaran & Whinston (2007) identify the need to develop social interaction to promote the accrual of social capital thereby implying that the community activity leads to the development of social capital. This is a view that echoes earlier calls by Preece (2002) “to examine how widely available communications technologies can be more effectively used to support communities and foster social capital development.” (p 37).

The individual advantage perspective of social capital (Bourdieu 1985, Portes 1998) is rarely used in an IS/business context, where there is more adherence to the concept of social capital as a collective resource (Nahapiet & Ghoshal 1998; Putnam 1993) that resides in the fabric of relationships (Wasko & Faraj 2005). A view of individual community membership is offered by McMillian and Chavis (1986) who attempt to describe a “sense of community” and then propose a model derived from an individual’s feeling about community being based on membership, influence, integration and shared emotional connection. This perspective is captured in Portes’ (1998) and Bourdieu’s (1985) discussions of social and other forms of capital as a method of measuring an individual’s advantage that derives from their social relationships. If such attributes as influence, integration and shared emotional connection are the contribution of individuals then understanding community members’ actions becomes an important facet of why a community would exist and develop. When considered with the notion of social capital it seems possible to claim a connection between them, with a “sense of community” being a precursor to the development of social capital. In an examination of the issues in social computing, Parameswaran & Whinston (2007) identify the need to develop social interaction to promote the accrual of social capital thereby implying that the community activity leads to the development of social capital. This is a view that echoes earlier calls by Preece (2002) “to examine how widely available communications technologies can be more effectively used to support communities and foster social capital development.” (p 37).

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There are two perspectives of social capital: the focus of internal or bonding social capital and that of external or bridging capital (Adler and Kwon 2002). The former refers to strong ties shared by “dense inward looking groups” gaining strength from social solidarity. There are negative sides to this solidarity, which can encourage inward looking actions and the setting of barriers to non-members of the group (Portes, 1998). The latter perspective of bridging social capital applies to the founding of ties with other social circles, generating new sources of support and information. Bridging social capital is seen as important for economic and social development as the outward or external focus encourages the forming of weak ties that allow for the development of direct and indirect connections to other individuals and social networks (Adler & Kwon, 2002). Nahapiet and Ghoshal (1998) see both perspectives as necessary constructs within social capital that comprises both the assets of the network and the network itself. This view is emphasized by Adler and Kwon’s (2002) argument that both forms of social capital co-exist simultaneously.

Drawing on extensive literature, Nahapiet and Ghoshal (1998) make the distinction between three highly interrelated dimensions of social capital: relational, structural and cognitive. In considering the social interactions of a SWS the relational dimension is particularly apposite in that it includes trust, norms, obligations and identification. These four factors are also seen as key elements of online community members’ needs (Bauer & Grether, 2005; Gefen & Straub, 2004). Gefen and Straub (2004) found that trust is an essential part of a social environment and the perception of social presence was enough to increase trust in a business environment. The second factor of norms is held by Bauer and Grether (2005) to be a main component of social capital and, within a community, refers to the social norms of openness and cooperation (rather than competition). Norms of interaction also include willingness to value diversity, which is essential to the formation of community. Norms of reciprocity are also essential with members repaying the community for benefits they perceive that they have gained from it (Jeppesen & Frederiksen, 2006). This aligns with the factor of obligation where there is expectation of received information or other benefits that will be ‘paid’ for by contributing something back to the community at a future date.
RESEARCH DESIGN

This paper takes a qualitative approach in examining how a social web site contributes to the creation of a sense of community amongst its members. An interpretive approach to the case study is used to enable the researchers to take a holistic view of this complex environment (Klein and Myers, 1999; Walsham, 1995). Although community and social capital have been widely addressed in the literature (for example, Preece, 2000; Wasko & Faraj, 2005; Bauer & Grether, 2005) the examination of a social web site that addresses an industry sector takes the study beyond the organizational level into a complex setting of multiple stakeholders. The social web site created for the dairy industry, Udderly Fantastic, is hosted and moderated by employees of Dairy Australia, with input from colleagues in the Australian Dairy Industry Council. It is a password-protected (bounded) site that is designed to engage with stakeholders in the dairy industry, with particular relevance to farmers.

The Case Context - Dairy Farming in Australia

The agricultural industry in Australia is a multi-million dollar business that makes a significant contribution to the national economy. The dairy sector has a farm gate value of $3.4billion (DairyAustralia.com.au) and there are an estimated 7,500 dairy farming families in an industry that employs 100,000 people; two-thirds of whom live and are an integral part of small regional communities across Australia (AustralianDairyFarmers.com.au). There are several key dairy stakeholders who interact with federal and state government bodies, such as the Department of Agriculture, Fisheries and Forestry, to “collectively deliver targeted benefits to the dairy industry and to the broader Australian community” (AustralianDairyFarmers.com.au). These organisations include Dairy Australia (DA), Australian Dairy Farmers Ltd (ADF) and The Australian Dairy Industry Council (AIDC).

There has been a sharp decline in the numbers employed in the agricultural industry and considerable challenges for Australian farmers from “consumer demands and government policies, technological advances and innovation and emerging environmental concerns” as well as long periods of drought in recent years (Productivity Commission 2005, p17). The dairy sector has seen a reduction in the number of farms from 22,000 in 1980 to less than 10,000 in 2004, while the average herd size has increased from 85 to 210 cows in the same period (Productivity Commission 2005). This follows a trend, evident in the US and UK, towards a reduced economic and social prominence of farming caused by economic and social diversification (Smaleis 2010). There are concerns that this rural dilution will continue into the next two decades with fewer traditional full-time family farms and an ageing rural population as younger people have left the land during the recent drought years in Australia (Smaleis, 2010). Another concern is the increasing support for animal rights organisations that challenge current farming practices in many Western countries (Boogard et al., 2010) adding pressure to a farming industry that is already experiencing low morale (Productivity Commission 2005).

Data Collection and Analysis

The data were collected over a period of nine months from mid-2010 and include a variety of sources that involved several steps in the data collection and analysis. As a first step, an examination was made of the facilities of the site based on Kim et al’s (2010) key features of a SWS. This set the background for the interpretive study of members’ blogging activity and stakeholder interviews. Three interviews of approximately one hour were recorded with two key personnel involved in developing and maintaining the SWS. One interview took place at the beginning of the research period and the others at the end of the data collection phase. The purpose of the interviews was to ascertain the reasons for creating the SWS and to gain a perspective of how it had developed over the course of its existence. The interview data, and follow up correspondence with the interviewees, were analysed using a historical perspective to chart the course of the SWS. Blog postings over a one-year period were then extracted from the site archives and analysed.

Open coding was used to analyse the blogs (Strauss & Corbin 1990) to develop themes of information and interaction that might be considered to be activity denoting existence of a sense of community. There were 15 main themes identified in this process ranging from personal sharing to education, access to government reports and general interest articles as well as industry practice discussions, activism and enjoyment. A second round of coding to refine and reflect on the open coding was conducted resulting in a final 8 themes, which are given in Table 2 in the Findings. This second round of coding was influenced by the social capital constructs of bonding and bridging that included identification with the community, shared experiences, trust and cooperation (bonding) and information flow and connection to new people and knowledge (bridging). The interview data were revisited after the analysis of the blog postings to identify any contribution to the themes uncovered from the blogs. At this time secondary sources of data, collected in the form of newspaper and trade magazine articles, the Internet, industry reports, emails and personal correspondence, were examined to support the themes derived from the blogs.
UDDERLY FANTASTIC – THE SOCIAL WEB SITE

This section reports the findings of the stages of analysis, and begins with a history of the development of the site derived from the interviews. This is followed by an examination of site features to provide the setting of the SWS and the findings from the blog analysis.

The Development of Udderly Fantastic

Udderly Fantastic, was created as a joint venture between Dairy Australia (DA) and Australian Dairy Farmers Ltd. (ADF) in 2009. It is a password-protected site that is designed to engage with stakeholders in the dairy industry, with particular relevance to farmers. The idea developed from a presentation on social media at an ADIC meeting and was quickly recognized as a way to address an increasing problem. In 2009 the dairy industry had been impacted by long term drought and adverse reporting in the media, resulting in many farmers leaving the sector and an atmosphere of low morale among those remaining. The idea of creating a community site to connect farmers and other stakeholders in a “walled garden” was born to provide a safe place to interact and create a sense of community. A similar journey being undertaken in the United States provided some input regarding the potential for “farmers as storytellers” and individuals, not paid by the industry, providing responses to media reports. The aim of the community was seen as providing a social space where dairy farming stakeholders could interact, share and celebrate their life experiences, find a sense of belonging and not be “shouted down” by anti-farm lobbies. There was also a sense within DA that members could gain knowledge of the issues facing the industry and could become articulate, informed advocates in the public space.

Udderly Fantastic was created as a pilot study with “no benchmarks” and low targets, with the expectation that benefits would be gleaned by the DA site managers from the learning experiences of the set-up. The somewhat arbitrary target for participation was 70 members posting 100 photos and 5 videos within the first 3 months. Using word of mouth, within 14 days of launch the site had 221 members, who had posted 353 photos and 3 videos. Within 18 months, the site had 900 members and more features had been added including a series of videos on how to use the site. The site managers see this enthusiasm for the site as very positive, highlighting the need for a community engagement facility for a large disparate, relatively isolated group of people with a common interest. The membership is seen to encompass mainly farmers (an estimated 66%) as well as providers of farm services (e.g. vets and feed merchants) and other industry people. The site managers are currently trialling a mobile version of the site and the use of FaceBook and Twitter links.

The Site Features

The Udderly Fantastic site is kept fresh with new articles and postings on a daily basis. The site was analysed using key features of a SWS as proposed by Kim et al. (2010) to ascertain the environment within which the members engage. Moderation of the site is done by two ‘milk monitors’ from DA and ADIC and they estimate that daily maintenance takes from 15 to 30 minutes. The site features are summarized in Table 2. The home page is changed regularly and features articles of topical interest, but also holds members attention by creating points of interest, hosting competitions and providing a constantly changing array of members’ photographs. The site can be highly personalized through the MyPage feature, which is reminiscent of a FaceBook page that supports the collation of personal data such as ‘friends’, replies to blog postings and photographs. Opportunities for interaction and the expression of personal views are many and varied including blogs, forums, commenting facilities and groups. There is a list of members with photos and newcomers are featured in a sidebar, encouraging existing members to send them a personal note of welcome. Members’ birthdays are also noted in a sidebar. Links to radio and television coverage of dairy farming interest are linked from the home page and items of news posted to the relevant news page.

Table 2: Udderly Fantastic Site Features

<table>
<thead>
<tr>
<th>Key features</th>
<th>Features of Udderly Fantastic (UF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal profiles</td>
<td>Each member has a personal homepage ‘MyPage’ which notes friends, personal details, blog postings, photos posted and forums accessed</td>
</tr>
<tr>
<td>Establishing online connections</td>
<td>A ‘friending’ facility where members can invite others to ‘friend’ them. The list of friends is shown on ‘MyPage’ and new links are posted on the home page</td>
</tr>
<tr>
<td>Participating in online groups</td>
<td>UF offers the facility to start a group within the site. There are currently 5 groups which are predominantly regional groups that organize face to face events.</td>
</tr>
<tr>
<td>Communicating with online connections</td>
<td>Current tools available for interaction on UF include email and links to FaceBook and Twitter as well as links to 180 Apps, many of which encourage communication</td>
</tr>
<tr>
<td>Sharing user created UCC</td>
<td>UCC is a strong element of UF with blogs, forums and groups as well as the opportunity to</td>
</tr>
</tbody>
</table>
content (UCC) post photos and videos

Expressing opinions All UCC can be commented on by other members

Finding information Information on UF is easy to find with all archived blogs and forums easily available through sidebar listings. There is also a search facility for each of the UCC pages

Holding the users Encouraging return visits is done through a series of features (e.g. featured members, blog, news) that is changed regularly to keep the home page fresh and interesting. New members are listed and members’ birthdays noted. There is also a link to radio programmes relevant to the site and media events that feature members are profiled.

Videos are accessible from the front page and include submissions by members and tutorials on how to use the site created by the DA staff (e.g. how to upload a personal photo). More recently, members were invited to “add Apps” and there are now 180 listed in the directory. Archives of all content are easily accessible to all members. Overall, the site effectively exceeds the key criteria of a SWS as defined by Kim et al. (2010).

Finding a Sense of Community in the Blog

Although the blog only constitutes part of the Udderly Fantastic site, it is the most active in terms of direct interaction between members (see Table 3). The number of posters is small in relation to the large membership, but there are frequent examples of new postings that begin with “I have never posted before but...” indicating that the activity is new to some members. A few members become more visible in blogging while others remain as watchers, although they often post photographs and videos. The motivation to post is usually a topic of interest to them, particularly in regards to farming practices. This is the most common theme of blogs postings and tends to generate the most responses and together with postings on farming lifestyle accounts for over half of all postings. The lifestyle theme covers a wide range of activities or thoughts of farmers and other stakeholders reflecting a way of life that is common to many of the members.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Contents included in the theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming lifestyle</td>
<td>Postings related to everyday life on a farm that are not directly related to work e.g. stories about visitors, finding student workers, enjoyment of the way of life</td>
</tr>
<tr>
<td>Farming practice</td>
<td>Postings related to work on a dairy farm such as use of machinery, calving, tail docking</td>
</tr>
<tr>
<td>Social postings</td>
<td>Social events not directly connected to farming such as local events, weddings and holidays</td>
</tr>
<tr>
<td>Public perceptions</td>
<td>Links to news articles about views on farming, outside pressure groups, news stories about farming. This section also includes reports on how members have reacted to adverse reports on farming in the press (e.g. bobby calves)</td>
</tr>
<tr>
<td>Education &amp; research</td>
<td>Links to reports on research studies into aspects of farming, opportunities for self-education and scholarship opportunities</td>
</tr>
<tr>
<td>General interest</td>
<td>Usually news items of a general nature e.g. programme watched on TV, scientific developments not related to farming</td>
</tr>
<tr>
<td>Government</td>
<td>A range of links to government websites and press releases about policy</td>
</tr>
<tr>
<td>Moderators’ input</td>
<td>Asking questions, requesting feedback or provision of links to further sites with content of interest to a discussion</td>
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</table>

In analysing the blog text, social postings were distinguished from lifestyle postings and were taken to refer to events not directly connected to farming. Such postings are found to constitute only a small proportion of the blogs. In the same way general interest postings are predominantly links to news items that have captured the interest of one or more members of the community. A similar level of blogging activity is seen in relation to government issues concerning farming such as the dropping of agricultural studies from the school curriculum or lack of government planning for the future of dairy farming in the face of foreign competition. Public perception blogs are on the increase in the community and in 2010 there were 15 new topics added. Members blog about actions they have taken to improve public knowledge of dairy farming such as hosting city dwellers to a ‘day on the farm’. There is also a growing advocacy role, which was indicated as a driver for the creation of the site by Dairy Australia staff in the first interview. This was particularly evident in 2010 with discussions on bobby calf transportation that were generated by several adverse press reports on the treatment of these animals. Discussions on the blog were used to underpin members’ activities in writing to newspapers and commenting in public on the farmers’ perspective of the argument. Education and research also forms an ongoing interest of community members in furthering their knowledge by accessing research reports and noting opportunities for education within the dairy industry.
DISCUSSION

The analysis of the Udderly Fantastic SWS shows a strong presence of those features held to be essential for the forming of community (Kim et al., 2010). However, it is noted in passing that providing the key facilities does not guarantee the creation of community as this relates more to meeting the individual and collective needs of potential members (Foth & Adkins 2006). The site managers of Udderly Fantastic were cautious in their initial approach and the development of the site was a gradual process of adding facilities as numbers and confidence grew, requiring as it did, a steep learning curve for all concerned. From the site managers’ perspective they found "what takes off is unknowable". From the members’ perspective it was a step into a new environment: "I am not that good at this blog thing but I decided to give it a go and see what come of it :-)"

One of the initial aims of the site was to provide some cohesion in the industry to enable farmers to address the growing visibility of the activists in the online environment who are skilled at using the Web to push their message (Boogard et al. 2010). Over the course of developing the site this “managing of the message” has become a community conversation. For example, as a uniting topic the “bobby calf debate fired the site” and engendered extensive debate. The topic was very visible in the press in 2010 where animal rights activists were targeting the practices involved in sending bobby calves to market. The Udderly Fantastic site enabled farmers to communicate with each other and they did “not go head to head” with the activists but used blogs to discuss the issues within the safety of the “walled garden” thereby gaining and sharing perspectives:

“The article is against the eating of baby animals (well all animals really!) and some of the comments are very negative about dairy. However, there's also some clarification from people who know what they're talking about! A reminder that we can all make a difference. I guess this is also a call to action for our Udderly members - social media can self-correct if we have informed, computer literate people out there!” This need to take a more active and challenging role in reflecting the counter arguments to the activists is repeated in several blogs on public perceptions of dairy farming: “I don't think dairy farmers can just sit back and hope someone comes to their rescue, you guys really need to do something apart from complain.” Others respond to the call for action through taking a more educational route by joining the campaign to host city families to ‘a day on the farm’; an activity that Boogard et al. (2010) say is very positive in challenging public perceptions. “Well we have made the move and offered our farm to a family for a day as well. Have not done this before, spose have been too busy”.

In this advocacy role as the members seek to find answers to challenges to their lifestyle and livelihoods there is a substantial element of bonding social capital evidenced by the strength of social solidarity (Adler & Kwon 2002). The strong ties of the group are indicative of the friendship, social interaction and access to information that promote participation in a community (Ridings & Gefen 2004). The sense of affiliation and belonging advocated by some authors as necessary psychological needs for community members (Wang and Fesenmaier 2003) is shown in many of the blog postings. In discussing the common lifestyle that many members share one posed the question “why be a dairy farmer?” The replies show a strong common love of the lifestyle and a sense of trust in sharing with the community.

“... for me it is also the freedom. You can work as hard as you like or if you feel like an easier day, and everything falls into place, you may be able to get some r & r. For me the best part is the mornings, checking the springer paddock and being greeted by all those lovely brown eyes as the cows come into the dairy for the milking, bliss”.

“So, what makes dairy farming Udderly Fantastic, then? To quote The Castle, for me, ‘it’s just the vibe of it’. It got under my skin. That’s pretty hard to promote to people who’ve never lived it. Great marketing challenge for DA”.

“What is it for everyone else here? Maybe Udderly Fantastic is the clue. Lots of pics of sunsets, youngsters (both two and four-legged) and beloved cows. Is that it?”

The strong ties of the bonding focus of social capital are also evident in the emotional support shared between members. This support may be in the form of commiseration and information provided for a work practices difficulty. For example on a question about a high number of twin calves born on one farm the discussion went on for several days and also included links to information on the topic: “thanks for your thoughts and input, I will keep you posted in the next couple months if we get anymore”. In other cases, responses are validation of action taken or activities: “Thanks [ ]! Always nice to get positive feedback. Would love to hear how you became a dairy manager and any helpful bits of advice you can pass on”.

The links to a vast variety of information include those to educational, research and government bodies. Overall, there tends not to be a positive response to government attitudes to farming. For example, in response to an article that was published indicating that the food and grocery sector might have to move offshore to survive (SMH 2010), the NSW government indicated that the article was alarmist. Udderly Fantastic bloggers responses to the government’s position in a highly negative way, as exemplified by the following: “This has GOT TO STOP, and NOW... How many of our local hard working farmers will lose work because of a stupid government
CONCLUSIONS, IMPLICATIONS AND FUTURE RESEARCH

Although a relatively new SWS, Udderly Fantastic members and managers consider they have created a community. In terms of identifying with the constructs from the literature, they display a common interest in dairy farming and the farming lifestyle, there is a great deal of user generated content and there are multiple methods of communication that are well used (Kim et al. 2010). The very high level of activity on the SWS is indicative of its vibrant community and the increasing engagement of senior management appears to offer a sustainable future for Udderly Fantastic.

This research has implications for the agricultural sector and for future research studies. The site managers have received expressions of interest in the community from other agricultural sectors in Australia and from dairy farming concerns overseas, indicating that greater understanding of Udderly Fantastic will contribute to extending the community’s value to the wider agricultural industry. For the dairy industry, this exploratory study indicates that members are gaining benefits of communication and interaction even in these early stages of the site’s existence. There are also implications for broadening the scope of the research to include more social media applications to add flexibility to the site and to bring a greater focus to research into the potential advantages of information technology and specifically social media applications in the agricultural sector.

The rich source of data available from a site such as Udderly Fantastic presents a considerable challenge to any researcher. This study has addressed the basic concepts of Udderly Fantastic and investigated the creation of a sense of community, but has used a very small number of interviews and an analysis of one year of blog postings. Other areas for research include extending the research to include in-depth interviews with dairy producers. Other areas for research include extending the research to include in-depth interviews with dairy producers.

There are fewer examples of the bridging focus of social capital within the community. Although there are several established offline dairy and rural organisations that facilitate the weak ties that characterise bridging capital, evidence of the interplay between offline and online social capital has not been examined in this study. However, online, members of Udderly Fantastic post connections to other sites and groups, and there are rich sources of information linked into the blogs. Members post introductions to other groups in which they participate such as young farmers’ associations, women’s groups and other dairy organisations. Many of these are face-to-face groups reflecting the newness of the online environment to many of Udderly Fantastic’s members. Nevertheless there are indications that weak ties are forming as other stakeholders join the community bringing links to, for example, funding bodies, rural organisations, and overseas farmers.

The benefits gained by members appear to be varied. There is evidence of trust and a sense of affiliation with the community and by bounding the site as a “walled garden” the managers have promoted a safe place to discuss issues that are of significance to the members. This is particularly important in an environment where public perceptions are increasingly informed by the animal rights movement (Boogard et al. 2010) through the use of the Web. Members are also gaining benefits from an individual perspective, “It’s so beneficial for me to be able to turn on the computer if I am having a bad day and see that someone else has had the same problem and been able to overcome it, or that someone else is sharing a wonderful piece of news, which always makes me feel more positive”.

The sense of reciprocity lies in the ability to draw on the rich sources of information and interaction held on the Udderly Fantastic site. Although only a small proportion of members contribute on a regular basis, there are no reservations displayed regarding the sharing of access to the information. The accumulation of resources lies with the community and can be drawn on by any member at any time. In this sense the accrual of social capital lies in the community to the benefit of all.

The online community is seen by its managers to have bridged a gap in the offline community as they find that “they are reaching segments [of the industry] that they have not touched before” and these “are not the people who come to meetings” held by the various dairy farming bodies. In an isolating industry they are “bridging the gap” and enabling members “to comment and share on life on the farm” and providing a platform for social engagement. In terms of sustainability, Udderly Fantastic is now gaining more support from senior management in Dairy Australia as the site develops. There is an ongoing monitoring of the issues and significant support of the community aspect of the site. Plans for the community include examining the potential of a public section attached to the closed community or a separate site where issues can be discussed with options such as “ask a farmer” and showcasing good farming practice provided. The site continues to be monitored by DA and discussions held on how to continue improving the offerings that promote “the sense of us”. The benefits of a place to “get together and celebrate the dairy industry” are recognized as well as the need to stay topical and maintain and support the industry.
farmers to gain members’ perspectives in terms of benefits and value gained from Udderly Fantastic. Further research is required to examine the interplay between offline and online activities, the effect on social capital and potential implications for knowledge sharing, education and further benefits to the community. Generalisability from one case study is generally problematic, but is more so in this field owing to the context specific nature of each online community. There is also a need for more research studies in the area of online communities in the agricultural sector and by extension, further research into their potential for rural sustainability to deepen our knowledge of this domain.

REFERENCES
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