

Will Social Media find “Meaningful Usage” in a Healthcare Context?

New Business and Engagement Models in Healthcare enabled by Social Media and Best Practices thereof



First published as a blogpost in [Health Science Strategy Blog](#) in July 2010 – referenced by the Healthcare Information Management Systems Society (HIMSS) and multiple blogs and tweeterfeeds across 42 countries.

A Point-of-View (POV) by

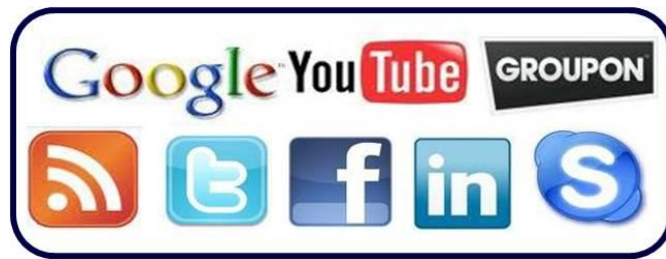
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Social networking tools or social media as they are referred to, comprise a myriad of platforms and tools like **Blogs** (leveraging platforms like [Blogger](#), [WordPress](#), [TypePad](#), [Drupal](#) et al), [Facebook](#), [Linked-In](#), [Twitter](#), [MySpace](#), [Slide Share](#), [Skype](#), [Podcasts](#), [YouTube](#), [Stumble Upon](#) and hundreds of others mushrooming everyday. With over **400 MM active users on Facebook** alone who spend over **500 billion minutes “facebooking” per month** and millions joining every day, the relevance of **social networking** and **social media** is beyond doubt, and an accepted fact of life today. In fact, the use of social software and its ability to promote collaboration between patients and the rest of the healthcare value chain is often referred to as [Health 2.0](#) – a term that is increasingly gaining widespread acceptance to describe this trend and phenomenon.

The key question this blogpost seeks to address is **how are social media being adopted and leveraged in a Healthcare context (especially from a patient centric perspective), the value delivered by Health 2.0** and the challenges and barriers to adoption thereof, especially given HIPAA and stringent security needs and concerns. Despite all of these concerns some of which are well founded, there is significant evidence that the web and social media are increasingly being adopted, leveraged and actively used in a healthcare context, as evidenced by the statistics below:

- * **60 MM consumers** globally currently sharing their health experiences online
- * There are over **1,200 communities on Facebook** advocating cures for **chronic diseases**
- * **216 Hospitals use Social Media** in one form or another

- * **23 Hospitals** have **blogs**
- * **83 Hospitals** have **Facebook Pages**
- * **126 Hospitals** have their own **YouTube channels**
- * **132 Hospitals use Twitter** and the number is growing everyday

While a number of articles and blogs highlighting the various uses of social media in a healthcare context have been written, in this blogpost, this author will present a novel and different perspective in the form of a strategy framework outlining the various use cases and scenarios for social media adoption in a healthcare context, mapped against two significant parameters that often determine success or failure with adoption of newer technologies and media.

It is this author's aspiration that this framework can potentially be leveraged as a blue print for social media innovation in a healthcare context and also, by extension, provide a valuable sanity check re: potential challenges and barriers to adoption and the business viability and feasibility of various innovation scenarios, business models and use cases, that seek to deploy social media in a healthcare context.

The strategy framework below has been adapted by this author from a seminal article entitled, ['Eager Buyers and Stony Sellers – Understanding the Psychology of New Product Adoption'](#) by John T. Gourville, Harvard Business Review (HBR), June 2006. The key premise is that the greater the level of change in customer behavior needed, the greater the barrier to customer adoption, despite the promise of value delivered by the new product or technology. Gourville makes the point that producers of innovation often overestimate the customer adoption by a factor of 3X while consumers allocate significant value to their current product or service and demand a value proposition that is practically 9X times that offered (perceived) by their current product or service.

This author has modified and adapted the framework from the paper above to craft this **2X2 Matrix** (please refer to the figure above) to map various business models, scenarios and use cases for social media in a healthcare context from a patient centric perspective as follows:

Meaningful Usage of Social Media in Healthcare and Barriers thereof

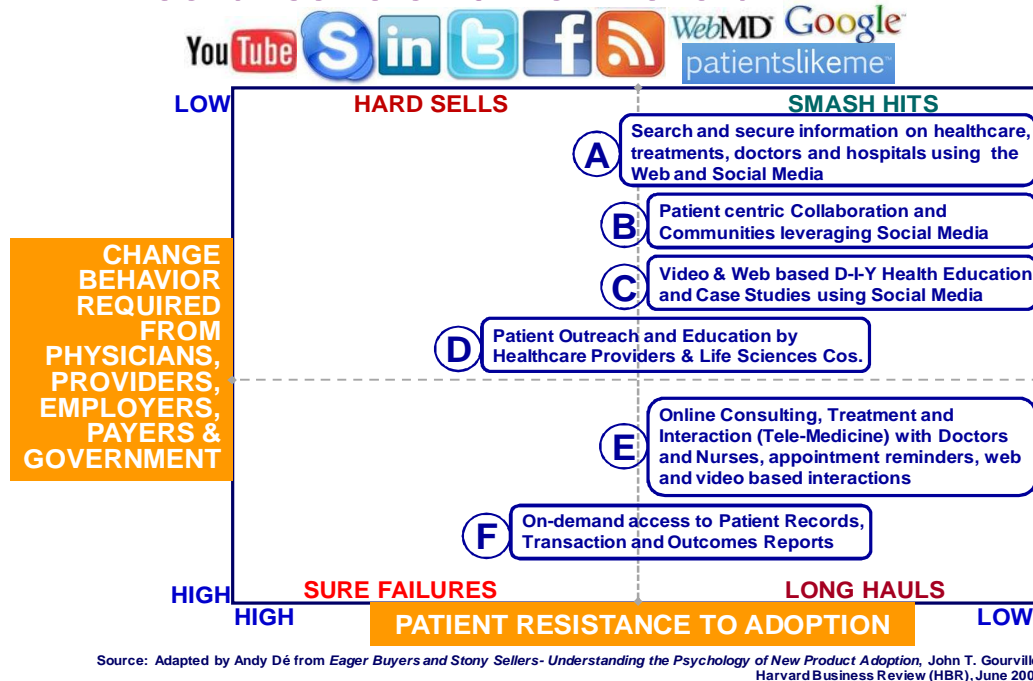


Figure 1. Meaningful usage of Social Media in Healthcare and Challenges thereof

The **X-Axis** maps “Patient Resistance to Adoption” from high to low while the **Y-Axis** maps the “Change in Behavior required from other Key Stakeholders that interact with Patients such as Physicians, Providers, Insurance Payers, Employers and indeed, the Government (given that it is by far the largest payer for healthcare services today).

The **Predictive Power of this Matrix** (please refer to the figure above) can be leveraged as follows:

- * **Upper Right Quadrant** – low patient resistance to adoption with low change in behavior required from other stakeholders like physicians and providers can be prognosis for “**Smash Hits**” – social media models, scenarios and use cases that will succeed in a healthcare context.

* **Lower Right Quadrant**- low patient resistance to adoption demanding high changes in behavior from other healthcare stakeholders like providers, physicians and payers signify **“Long Hauls”** i.e. patients have seen significant value from the scenario, model or use case but concerns re: security from providers and physicians, or lack of reimbursement from payers etc. could potentially slow down their traction and widespread usage.

* **Upper Left Quadrant** -high patient resistance to adoption but demanding low change behavior from other Stakeholders is classified as **“Hard Sells”** i.e. a solution probably looking for a problem that patients see little value from adopting, and will demand considerable efforts and incentives for traction.

* **Lower Left Quadrant** – high patient resistance to adoption with high changes in behavior required from other key stake holders is a non-starter or recipe for **“Sure Failures”** and little to no potential traction. Key message – proceed here at your own peril and risk

Let us leverage this strategy framework to map the six most probable business models scenarios, interactions and use cases (**A, B, C, D, E** and **F** from the figure above), for the innovation, creation, adoption, and usage of social media in a healthcare context with specific examples where relevant, as below:

A. Given that over 60 MM people globally leverage the web (Google and similar search engines, information resources like [Web MD](#) and other healthcare portals) and social media like blogs and wikis to **search and secure information on healthcare issues, topics, therapeutic areas, treatments, doctors, hospitals, regulations and reimbursement models, this is already a “Smash Hit” and embodies the most obvious usage** that can be safely prognosized to grow by leaps and bounds. [Healthcare Scoop](#) is a health infotainment site that enables its users to discuss healthcare specific issues (alphabetically indexed) and also share their experiences re: hospitals, doctors and treatments. The obvious benefit for users is lowering

of search costs for health information, as well as secure the opinions and insights of others who may have already had similar experiences.

As a matter of fact, the advent of “Life Blogging” or sharing quantified healthcare data over the web and social media is being perceived and recognized as a social phenomenon referred to as the “Quantified Life Movement” as articulated in this [recent Fast Company article by Jamer Hunt](#). Access to free or almost free social networking platforms like blogs and Facebook and cost effective analytics and visualization software deployed thru personal health dashboards such as [Daytum](#), is enabling people concerned re: their health to monitor, measure, analyze and report their health data leveraging personal health dashboards (example illustrated in the article above) with friends, caregivers and relatives to further their wellness. The article also alludes to the significant opportunity and potential of aggregating this quantified patient data and analyzing the data to identify and perhaps even predict changes in disease patterns correlated with the underlying demographics – a virtual treasure trove of data with yet untapped potential for sure!

B. Another model leveraging social media that is a “**Smash Hit**” and growing by leaps and bounds is the **advent of patient centric collaboration and communities leveraging social media to explore, discuss, collaborate and share data, news, and personal healthcare information**. Contrary to oft cited concerns re: sharing of health information in an online context, a number of people who are comfortable transacting financially online and use social media are clearly comfortable doing so. As pointed out earlier there are over 1,200 communities on Facebook along seeking, advocating or discussing cures for chronic diseases. Groupware and security settings on Facebook also enable patients with chronic diseases like cancer to create their own private community of relatives and friends to share updates re: their conditions, treatment and progress periodically.

Patients afflicted with sensitive, complicated, uncommon or “orphan diseases” and disorders like Multiple Sclerosis, Parkinson’s Disease, HIV/AIDS etc. have joined [Patients Like Me](#) to find, connect, collaborate and form communities with others afflicted with similar disorders and diseases. In addition to empowerment thru kinship and collaboration, these groups are

leveraging their advocacy and global community with the government, payers and pharmaceutical companies and others to seek cures for these diseases, that otherwise have a low probability of being addressed.

A somewhat similar model providing free web-sites and the ability to create a private community of relatives, friends and caregivers is enabled by Caring.com and CareFlash. The model targets people (“family caregivers”) with ailing or elderly, relatives and friends who demand greater privacy and security than that provided by Facebook or similar platforms and can leverage the tools provided by these businesses to build a private community and discussion forum centered around the patient. From engagements with caregivers to scheduling appointments with friends and relatives for visitation, discussing relevant issues with other members to blog authoring and providing uplifting videos and infotainment, these models are delivering value by enabling people to care for their relatives and friends leveraging technology and social media. While these models have seen early success, their long term viability is predicated on significant subscription and usage revenues from payers and employers who would leverage their platform and tools for their insured employees and patients.

A somewhat different model enabling people to leverage their data from their personal health records like Microsoft Health Vault for wellness programs is provided by Keas, founded by Adam Bosworth (who had previously founded Google Health). Keas helps people understand what their health data means and how they can use it for health and wellness thru their care plans. These care plans leverage patient data (family history, health conditions, vital signs like weight, blood pressure, cholesterol etc.) to empower people to manage or improve their condition, or leverage their lab results to deliver personalized content, alerts or action items to improve health and accomplish their health and wellness goals. Patients and plan providers pay a fee to enroll into these care plans which provides Keas with its revenue streams to build and sustain its platform and business model.

Similar to these patient centric communities, there’s [Medscape \(now run by WebMD\)](http://Medscape), a social network for doctors that has a format similar to MySpace or Facebook and includes 100,000 physicians.

C. A similar and closely related model and a potential “**Smash Hit**” that is emerging and is being widely adopted is the **use of videos and web-based do-it-yourself health education and case studies leveraging social media like YouTube**. While YouTube is a source of thousands of uploaded videos and even branded channels (over 126 hospitals have their own YouTube channels) that anyone can access, there are interesting models of privately owned and branded healthcare content that are also seeing considerable traction and adoption.

icyou.com is a one-stop shop providing an aggregation of health content on videos that patients, caregivers and even healthcare service providers can leverage, to make informed decisions re: health related issues. It would not be surprising if content from icyou.com is syndicated and leveraged by a number of the healthcare and patient communities referred to earlier, as well as healthcare providers and payers for purposes of quality and cost-effective health relevant education and infotainment for their patients and/or caregivers.

D. A model that is emergent and very interesting is **patient outreach and education, infotainment and marketing by life sciences (pharmaceuticals, medical devices and equipment and bio-tech companies) and indeed healthcare providers themselves**. The underlying rationale is the leverage of the web and social media to create “stickiness and pull” for new drugs, treatments and devices in a life sciences context or build patient loyalty thru communities in a healthcare provider context.

Healthcare Providers: Best practice in the usage of Facebook, Twitter, Blogs, podcasts and web-pages for patient outreach in a healthcare context is exemplified by the [Mayo Clinic](http://www.mayoclinic.com) which began experimenting with social media around four years ago. As pointed out in this article “[Healthcare meets Social Networking](#)” by Kimberly Morrison in the [Jacksonville Business Journal](#), Mayo Clinic, which has a campus in Jacksonville, has come a long way in just a few years, since adding a Facebook page with more than 3,000 friends, a YouTube channel with videos of doctors talking about illness, treatments and research, a health blog for patients and another for media to improve the process of medical reporting, all for an incremental initial investment of around \$1,500! It’s also creating “private groups’ on Facebook to connect patients to others with similar illnesses, an area it hopes to expand in the future. As well, Mayo Clinic

now provides healthcare centric infotainment for local radio and TV stations. Mayo Clinic has successfully leverage the potency of “word-of-mouth” marketing from happy patients and leveraged social media tools like Facebook, Twitter and its blogs to amplify its impact for patient outreach and loyalty that other hospital providers all across the world can learn from.

Mayo Clinic has since crafted and delivers a portfolio of blogs targeted at various audiences as below:

* [Mayo Clinic News Blog \(RSS Feed\)](#) provides pre-embargo resources for journalists and then makes that same information available directly to patients. It’s their “hard” news analog to Time, Newsweek or U.S. News & World Report.

* [Mayo Clinic Podcasts \(RSS Feed\)](#) provides evergreen health information and general medical news.

* [Physician Update \(RSS Feed\)](#) is aimed at the physician audience but open to anyone.

* [Advancing the Science \(RSS Feed\)](#) is a medical version of Scientific American.

* [Sharing Mayo Clinic \(RSS Feed\)](#) is a blog with stories, experiences and videos of employees and patients relating their experiences at the Mayo Clinic and what makes it so special, which is probably the most popular of all its blogs. For instance, a video of an impromptu performance by an octogenarian couple within the atrium of one of Mayo Clinic’s buildings that was recorded by another patient and uploaded onto YouTube by her daughter went viral on the web with over 7.2 million views ([click here to read the story and watch the video](#))!

An interesting factoid worthy of mention here is that **Lee Aase**, the manager for syndication and social media for Mayo Clinic, who led and orchestrated the Mayo Clinic’s social media strategy, also moonlights as the chancellor of [Social Media University Global \(SMUG\)](#), a free online university to help people explore, familiarize and master social media.

A real-world example of social media leverage in a small physician practice context from this author’s neighborhood, is manifested in this compelling video of [Mac Arthur OB/GYN in Irving, Texas](#) leveraging a portfolio of technologies including their [patient interaction/practice portal](#), facebook, twitter etc. for patient engagement and outreach – clear evidence of value delivered!

For **Life Sciences companies**, especially large ethical Pharma companies, that have long relied on “sales and physician push” to get their products to market, **the web and social media provide potent and powerful tools to create “pull and stickiness with patients”**. While big Pharma has traditionally been reluctant to embrace these new media given the stringent regulations governing them, visionary companies are beginning to embrace social media to craft relationships with their patient consumers.

An early success story centers around [Alli, the obesity drug from GlaxoSmithKline \(GSK\)](#). GSK developed www.myalli.com as its forum to educate and connect with patients re: the efficacy of its new obesity drug. GSK also offers its consumers a weight reduction and wellness plan ([myalli plan](#)) on-site as well as the tools to monitor, measure, analyze and improve wellness. Also offered is access to [Allicircles](#) -its community of patients on the myalli plan, to help new plan entrants learn, discuss and see real-life successes from people like them to encourage them to follow the plan and see results for themselves.

As of this blogpost, it has been estimated that GSK has purportedly seen over 30,000 members sign up for myalli.com, which is fairly significant and points to similar opportunities for other pharma companies to engage with patients leveraging social media and the web as potent channels to complement their sales and marketing and physicians who write their scripts.

E. A “Long Haul” opportunity that intuitively spells considerable and widespread adoption potential is healthcare consulting, interaction (video conferencing, tele-medicine and tele-health) with doctors and nurses as well as setting of appointments and reminders leveraging the web and social media. Given the reluctance and privacy/security concerns even around something as ubiquitous as e-mail communications with patients, usage of social media tools like Skype for video based interactions and consulting appear to be a distant dream at this time.

However, there is hope on the horizon for potential widespread usage of tele-medicine given the high incidence of chronic diseases today, especially in remote and rural areas where patients are often challenged to access quality healthcare. First and foremost, [recent federal \(USDA\)](#)

[and insurer grants to promote tele-medicine](#) especially in rural areas will go a long way to promote and scale usage of tele-medicine and tele-health, going forward.

Secondly, the availability of robust tele-medicine and tele-health solutions like [Cisco's Health Presence](#) ([click on the link to check out the compelling video](#)) and [Intel's Health Guide](#) ([click to view the product data sheet in PDF format](#)) enables video based interaction with patients within the context of their homes just as easily as if the patient were half way across the world. Equally compelling is the ability for these solutions to connect wirelessly with medical devices for measuring vital signs like glucose and blood pressure and transmitting the data into the context of that patient's electronic health record (EHRs).

Engaging with elderly patients as well as those afflicted with chronic diseases like diabetes, congestive heart failure, cancer etc. and their physicians or providers and having them embrace these technologies to monitor and deliver treatment while ensuring appropriate reimbursements by payors, will be key to success with this model, that is very far from ubiquity today. However, this is a very promising area of delivery high quality healthcare services at a lower cost and presents significant incremental revenue opportunities for medical devices and equipment manufacturers like **Siemens, GE Healthcare, Philips Healthcare, Medtronic, Johnson and Johnson** and companies like **Cisco, Intel and Verizon** that I have addressed in one of my previous forward looking blogposts ([Will Siemens, GE Healthcare, Philips et al evolve into Senior Citizen Services Providers in the foreseeable future?](#))

F. Perhaps, the most challenging model and scenario is **on demand access by patients to their records, prescriptions, transactions and reports on outcomes over the web and using some form of social media**. Given [current HIPAA regulations](#), security concerns re: online access to sensitive patient data, and potential for fraudulent usage, this is a scenario that will perhaps be realized not in the immediate future but hopefully, surely in our lifetime.

The most daunting challenge today is arguably, the low penetration of Electronic Medical (EMRs) and Electronic Health Records (EHRs) in both a healthcare provider (around 17% penetration at this time) as well as small physicians' offices (barely around 5% at this time). Implementing robust [CCHIT certified](#) EMRs and EHRs across healthcare providers and small

physicians' offices in the context of the ARRA stimulus and HITECH regulations from the current government are anticipated to go a long way to drive up adoption and scale usage. Once "meaningful usage" of EHRs is realized across the healthcare ecosystem in a US context, selectively and securely providing access to patient data, records and reports would be rendered feasible, subject to robustly addressing data security and HIPAA constraints, and aligned with data governance guidelines. Until such time, this will remain a "**Long Haul**" and will demand significant policy initiatives, hardware and software innovation from enterprise IT vendors, guidelines from the regional extension centers that have been set up by the government, as well as cost-effective and disruption free implementation models and services to realize this vision.

In conclusion, this blogpost has addressed some of the most potent models, use cases, scenarios and interactions from a patient centric perspective rendered possible by social media in a healthcare context. A framework for appraising the viability and feasibility of these models has been provided.

However, this perspective would be incomplete without addressing **the potential impact of newer devices like the iPad on scaling the adoption of social media in a healthcare context**. Given that over a million iPads were sold within 72 hours of introduction, early enthusiasm and feedback from even elderly users ([check out this viral YouTube video of a 100 year old eagerly using the iPad- then only computer she has ever used](#)) re: the ease of usage, data consumption and mobility, points to the [immense potential of the iPad as a device for healthcare information, infotainment and data communication, consumption and collaboration](#).

It is the prognosis of this author that widespread adoption of the iPad, content as well as healthcare specific applications and software availability for consumption on this device, will go a long way to further scale adoption of social media in a healthcare context and accelerate some of the models discussed above. This if realized, will further the promise of transparency, access and delivery of quality healthcare to patients more cost effectively, going forward.

As always, your comments, feedback and pointers are highly appreciated.

COMMENTS RECEIVED FOR THIS BLOGPOST:

- Comment received on 7/14/2010 - Rich Smith says: "Outstanding job explaining the various model and social media applications in healthcare and mapping them on this strategy framework. Food for thought and action and a great sanity check for business plans! Great blog- keep up the good work!:-)"
- Comment received on April 24th, 2011- Anthony Gold says: "Andy, Terrific write-up, as always. An interesting study would be the integrated delivery systems of organizations like Kaiser Permanente, Geisinger, Group Health Collaborative, etc. and their "partial assimilation" of your D, E, and F scenarios. With their claims of very high patient registration into and utilization of their "online" systems (well over 50% – "low resistance") coupled with the changes required on the "provider/payer/hospital" end (technology, work flow, staffing, training, integration, etc. – "high change behavior required") – it's definitely a "long haul" play. And, all of those organizations would admit they've been at it for years tuning their models. Kaiser even has a social media policy for their employees that even includes some best practices for blogging. No mention though of physicians not tweeting from the ER"
http://xnet.kp.org/newscenter/media/downloads/socialmediapolicy_091609.pdf)
- Comment received on 8/10/2010 - Loy Mendonsa says: "Andy, I would like to commend you for this seminal and insightful article that substantiates your standing as a strategic thinker and visionary. You have done an incredible job surveying the social media landscape and then connecting the dots between trends and early adoption to the potential business models and their implications.
Your framework for stratifying these business models and their potential for adoption could well be the basis for a strategy consulting practice in the foreseeable future! Awesome job – please continue your contributions."
- Comment on 3.4.2011: Danny Fell says, "I like the model and generally agree with the positioning of the six examples. I tend to think that consumer interest in electronic health records is at a tipping point though so demand may rise faster than healthcare providers are ready to admit. And for many consumers, personal data is more relevant than general social health content.
Anecdotaly, we have clients telling us that once they started promoting PHR's in their market, patient requests were stronger than expected. A particularly interesting aspect is proxy records for the "sandwich generation" to monitor a child's health and an aging parent's health. This will all be very interesting to watch."

- Comment received on 8/20/2010 - Anonymous says: "This is a fantastic, comprehensive, and timely article! Very nicely done. I like your assessment of the potential benefits and areas of adoption. I was reminded by a friend's story of the importance of patients managing their own healthcare because the medical establishment has a fragmented approach – so the only one connecting the dots about your health is ultimately you. However you can't be the expert always so having a "group of friends and relatives" who you can tap into via social media is actually not a "nicety" but a must-have.
- Comment received on 7/15/2010 - Jim Sabogal says: Thanks Andy for this post. I have referred to this in a recent post entitled "Deriving "value" in today's world of Social Media" <http://wp.me/pKKS4-3D> I like the idea of the creatio of distinct business models. This has helped me focus on one model (scenario E) for our business. I hope to be a featured blog post and look to reference your post – thanks again great job....Jim
- Comment on 3.4.2011- Melissa Cole says, "Helpful summary of data/information in this terrain – along with some great examples from what Mayo is doing. Thank you Andy.
- Comment on 8/25/2010: Anonymous says: "Hello! Congrats for posting this such very informative post. I really admire your generosity for sharing this great information. Thanks for sharing!"
- Comment on 1/18/2011: Anonymous says: "Wonderful and detailed analysis. Interesting that #hcsml weekly conversation several days ago covered ways in which health care professionals/institutions could use SM to deliver care, and get paid...and not breach confidentiality or HIPAA, maintain some sort of physician-patient relationship that was personal and therapeutic, and regain trust, all at once.
- Comment on 3/4/2011- Lynn Nolte says, "This is great information Andy. Thank you for putting it together!"
- Comment on 3.4.2011- Claus Tuschmann says, "Great Read!!"