Michigan's Windows to the Global Knowledge Economy: A County and Regional Level Web Site Analysis from an Economic Development Perspective

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Foreword

Kenneth E. Corey

Today, in the global space of electronic commerce and electronic business, the World Wide Web functions as a window for localities to interact with the rest of the world. In order for Michigan's regions and counties to engage in e-business, and thereby benefit from resultant economic development, it is imperative that the state's localities have effective economic development Web sites.

The study that follows demonstrates that Michigan's regions and localities are widely prepared, but at various levels of preparation, to engage in Web-based promotion of economic development. The study also showed that many of the state's localities do not have Web sites for economic development, and many do not have a government Web presence at all. The research revealed Michigan's economic development Web leaders, contenders, followers and laggards. The findings from Mr. Singh's research can be used to inform needed plans and actions.

There is a positive force that is embedded in this kind of study for the future. Information and communications technologies are dynamic. As such, there are indications that that more localities are establishing e-government and Web capacities. Consequently, one may expect more economic development Web sites to be established and improved across the state.

It is a pleasure to be able to provide some opening commentary on this Occasional Paper by Mr. Karan Singh. His work presented here is important. It can serve to focus and bring greater awareness by Michigan's various local development stakeholders to being competitive in today's global knowledge economy. Among others, these local stakeholders include: regional and urban planners; business leaders; members of local nonprofit organizations and government officials from the several levels of government. The needed awareness, for now, has to do with ensuring that local leaders work to get their communities connected to the Internet with broadband networking capabilities.

However, once high speed broadband connectivity has been widely achieved, then the major challenge for the near-term future will arise. This will entail developing the content and business opportunities required for successful economic development. This is when innovation and creativity will be especially critical to future development success.

On behalf of our k-economy research and development team of Mr. Singh and Professor Mark I. Wilson, we thank Dr. Rex LaMore, Director of the Center for Urban Affairs at Michigan State University. His support was critical to the completion of this study. Professor Wilson and I provided the initial overall design for the research and for the construction of the Web site analysis framework. Mr. Singh provided the hard work and operational tasks of the Web site analysis, the interpretation and assessment of the economic development Web sites, the mapping of the results, and drawing the principal conclusions of the research. We believe that his study has provided the results needed to help stimulate attention to some of the needs identified from the research.

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Karan Singh

Executive Summary

Today's society in the United States operates in a global knowledge economy. Technological advances, entrepreneurship and science and technology-driven innovation characterize the knowledge economy, or "k-economy." Within the state of Michigan, local economic development agencies play an integral role in helping to shape Michigan's future in the global knowledge economy. By means of a Web-site analysis, this paper aims to highlight the leaders, contenders, followers and laggards among Michigan's economic development agencies at the county level and for the fourteen planning regions. The objective of the paper is to have the findings create awareness and stimulate improvements among Michigan's economic development planners and others, and to provide an understanding of Michigan's knowledge economy through the lens of economic development Web sites. Given the dynamic nature and the concurrent development of web-sites, this paper is not an exhaustive study of the suggested analysis.

The principal contributions of the paper are to:

- Demonstrate the importance of understanding Web-based communication as it pertains to knowledge economy development initiatives;
- Offer a framework for k-economy economic development Web site analysis and its associated methodology;
- Analyze and classify the economic development Web sites of Michigan's counties and planning regions by degrees of perceived k-economy effectiveness; and
- Comment on the general implications of the results of the analysis for the creation of a more competitive sub-state Michigan for the global knowledge economy.

Introduction

Michigan's economy today is part of the global knowledge economy. Technological advances, entrepreneurship, and science and technology-driven innovation characterize the knowledge economy, or "k-economy," The knowledge base of an economy "revolves around creating, sharing and using knowledge and information to create wealth and improve the quality of life" (http://www.morst.govt.nz/guide/knowledge.html). Knowledge economy development experts at the Progressive Policy Institute, concur that the key factors driving knowledge-based economic growth are research and development (R&D), world-class education and skills, global trade, organizational innovation, robust competition, elimination of archaic government policies, encouragement of entrepreneurship and amenity factors such as high-quality levels of living. Understanding these new issues within which our modern society operates is critical for local and regional planning organizations engaged in k-economy economic development. These organizations in many instances help define policies and set the strategic framework within which future business and economic development will occur. These knowledge-based economic activities and amenities can lead to higher productivity and stable economic growth, which are fundamental to expanding

opportunity and raising the living standards for localities and regions in the knowledge economy.

Within the context of the k-economy (or as some refer to it as the New Economy), broadband communications and the Internet can have an important facilitative and stimulantive effect on local-area economic development. With the influence of the Internet and with Web-based marketing revolutionizing communication, many successful private sector and public sector organizations have harnessed these media to strengthen their competitive advantage. *Web sites have become windows to the world* for these successful organizations.

Similarly, many local-area and regional planning organizations across the United States have embraced Web-based marketing to promote knowledge-driven economic development in their states, counties and cities. Even though some local and regional planning organizations have been slow to use a Web-based informational and knowledge-driven content marketing approach, it is becoming clearer that the lack of an effective Web site may place a locality at a disadvantage in this highly competitive global knowledge economy.

Web sites and economic development

In economic development circles, Fairfax County in Virginia often is noted as an exemplar of an effective approach to contemporary economic development. Fairfax County's economic development has embraced a technologically supported approach to the marketing and promotion of the area, and has emerged as a leader and a model for other economic development and regional planning agencies with technology-based goals as part of their programming. Successful programs promoted on the Fairfax County Economic Development Authority Web site include, but are not limited to, strong business-government liaison services, excellent information on quality of life factors in the area, promotion of strong school systems and universities in the area, promotion of a business-friendly environment, sales and economic development offices located globally in key countries with access to the major global marketing regions, a Web site with foreign language options, facilitative policies for export-import oriented industries, a strong technological industrial and R&D cluster and a local workforce of knowledge workers that is available to complement technology oriented companies (http://www.fairfaxcountyeda.org). These are the thematic guiding principles that have enabled Fairfax County to be recognized as one of the economic development leaders amongst counties across the United States in the context of the global knowledge economy.

The case of Michigan

Utilizing the above mentioned driving and content principles, again, within the context of the global knowledge economy, the discussion turns to the state of Michigan. The analyses that follow are focused specifically on economic development organizations at two scales: (1) at the county level (i.e., 83 county governmental units), and (2) at the regional planning level (14 regional planning councils) within the state, these regions are composed of counties. Using a qualitative research methodology and Web site analysis, patterns emerge where some areas in Michigan do, but many more do not, incorporate science and technology (S&T), information & communications technologies (ICT) and other k-economy fundamentals and content as major emphases of their planning, strategies and priorities for economic development. These areas emerge spatially as county areas, and regional areas that are distributed across the landscape of Michigan. These counties, and regional distributions were mapped; the resulting patterns represent the distribution of the current state of the art of economic development in Michigan at sub-state levels.

The analysis identifies where localities and their regions are engaging the global knowledge economy (or not) in their planning for expanding opportunities and raising the standards of living within the state. The economic development planning in these areas will guide development and

therefore are key to the growth of Michigan's local and regional level economies. One can expect these plans to succeed, in large part, by providing useful information on ICT-facilitated and knowledge-driven content on their Web sites for the benefit of potential commercial and residential investors, as well as providing information on complementary amenity and quality of life opportunities and services that support economic development decision making.

The analysis revealed a clear pattern of clustering around Detroit/Ann-Arbor/Oakland County/Flint in southeast Michigan, Grand Rapids/Muskegon in west Michigan, Kalamazoo/Battle Creek in southwest Michigan and for a few counties in mid-Michigan around Lansing/East Lansing/Saginaw and also for some counties in the upper peninsula of Michigan, near the larger cities. Consequently it is these areas that have emerged or have begun to emerge as the "knowledge-economy zones" of the state. The Web sites of these localities are interpreted here as seeking to relate to and steer local development to capture for their localities, the benefits that may be derived from the principal forces driving economic development in the global knowledge economy.

The analysis also revealed that there are some areas of Michigan that are lacking k-economy drivers or that these areas are not promoting these potentials in their Web site presentation. Given the highly competitive nature of today's global economy, those Michigan localities that do not strategize to engage these realities can expect to experience eroding economic bases and associated decline in their social and cultural institutions. These areas are identified as distressed communities. It is intended here that the findings from this analysis will serve to stimulate action toward the formulation of sound urban and regional policies planning that incorporate the needs of distressed areas, thereby seeking to expand k-economy opportunity for all residents and raising their living standards. The analysis further defines leading areas and their model indicators. The decision makers of the trailing areas may use these "leader" characteristics to improve the content and promotion of their respective economic development strategies. Thus, "laggard" areas may become "follower" areas and these might become "contender" areas, and so on, such that each of Michigan's localities and regions can emerge from an improved economic development planning effort as more competitive in the global knowledge economy.

The methodology described below defines the approach of the analysis and resultant groupings. The aim here is to identify Michigan's *areas that lead and the areas of need*.

Methodology

The economic development questions listed in Table 1 were applied to the Web site of each county and planning region where such a site was found. The analysis consists of an eighteen-question framework and some additional open-ended comments that are particular to the individual area under study. The analytic framework incorporates the key drivers of economic development success that characterize the global knowledge economy. Michigan State University professors Kenneth E. Corey and Mark I. Wilson developed the framework.

The analysis also focused explicitly on the development initiatives of distressed areas at the two scales under investigation – the county and the planning region. The analysis framework accommodates additional county and planning region idiosyncrasies that evolved during the research process; these were recorded under the "additional items" section. Throughout the table, "ED" is the abbreviation for economic development. The Web site analyses were conducted over the period of May 2002 through September of 2002, and certain planning regions and county sites were revisited in January through February of 2003.

Based on this framework, a Web site analysis was conducted of the state's 83 counties and 14

Table 1
Framework for the K-Economy Economic Development Analysis of Local Area Web Sites

Strategic Planning Process:

1. Does the ED plan have a champion?
2. Is it structured to Include a wide variety of viewpoints?

Strategy:

3. Vision?
4. Are the ED plan and tech initiative(s) planned to benefit all parts of the area, including distressed areas?
5. Based on an understanding of local tech infrastructure and initiatives, including industrial base, what are the S&T, and ICT capacities?
6. Is the ED plan and tech initiatives based on existing delivery systems; has an inventory of currently available tech services been conducted and made available?
7. Does it address the key elements needed to support tech-based development?
8. Does it include performance-based metrics, to audit progress of plan implementation?

Implementation Plan:

9. What initiatives and actions have been developed to improve economic prosperity, specifically in distressed areas; and what deliverables and timelines have been set to start/develop tech initiatives?
10. What type of budget or funding stream is associated with the tech implementation?
11. Does it have leadership or ownership committed to the tech implementation?

Other Analysis:

12. What prominence does ED have on the web site?
13. Are the stakeholders kept informed of developments (e.g., via newsletter, annual report, e-mail list-serves, town hall meetings, etc.)?
14. International Marketing Capabilities (for the county or area)?
15. Does the ED agency have (or have access to) foreign offices?
16. Does the Web site provide foreign language option (s)?
17. What are the intangible/salient attributeslisted? E.g., entrepreneurial climate, quality of life, etc.
18. What are the tangible benefits` listed? E.g., venture capital, access to financing, start-up services, skilled workforce, training, etc.

Additional items not covered by the above 18-element framework:

Who are the key contact person(s) with respect to planning and economic development? E.g. Do they have email links, contact phone numbers etc.

What other relevant sub-county or sub-region planning and economic development agency(s) are cross-linked through the county or region's web-site?

planning regions. The focus of the Web site analysis was on economic development planning from the perspective of the goal of engaging the potential of the global knowledge economy and capturing for the local area, the benefits of new knowledge driven economic growth. The project, of which this analysis is a part, also aims to inform regional and local planners of the current k-economy landscape in Michigan, and to enable planners and other decision makers to benchmark their areas compared to the state's leaders. In addition to the 18-question analysis framework, the perceived quality of each Web site's graphical user interface and the ease of using the site were taken into account. Such qualities also influence perceived comparative advantage among Web sites in the highly competitive environment of the global knowledge economy.

Analysis of K-economy Economic Development Web Sites

These Web site perceptions then were categorized into four perception groups (The four perception groups enabled the area Web sites to be categorized as Leaders, Contenders, Followers, Laggards and see Appendix A for further explanation) that are seen as pertinent to planning k-economy web-site initiatives. These are:

User-friendly and attractive *Graphical User Interface* (GUI) of the Web site:

This criterion was applied by reviewing the county and local-area Web site to determine the usage of flash movies, PowerPoint picture slides, eye catching graphics, quality of interlinking between the categories and information mentioned on the site and the ease of use to link between the categories on the site. If the Web site meets a majority of these attributes, then the site was assigned to the leader category. The order of categorization descended to the laggard category if the web-site's had fewer friendly GUI's or an unattractive web-site.

Knowledge driven information and communications technologies *ICT content* on the Web site:

This criterion was determined after reviewing the content of the Web site. The analysis focused on such information as ICT industries, promotion of ICT ventures, high tech industrial parks, availability of broadband connectivity and S&T oriented educational programs or institutions that are promoted in the area. If the Web site met a majority of these content attributes, then the site was assigned to the leader category, and the order of the categorization descended to the laggard category.

***Positive answers to a majority of the questions* on the analysis framework:**

This criterion was determined by reviewing the above analysis framework and verifying that a minimum of 8-10 questions were answered with a "yes" and then accordingly the county or region was categorized as a "leader." Answering 6-7 questions with a "yes," placed the area under investigation into a "contender" category and having 4-5 questions with a "yes" answer placed the area into the "follower" category. An area's web-site was assigned to the "laggard" category if they had no web-site or an almost nil presence on the answers to the questions on the analysis framework. The categorization also took into account "yes" answers on the additional question's section of the analysis framework, excluding the contact information inquiry.

***Economic development initiatives*, including distressed area development initiatives, were stated on the Web site:**

The application of this criterion involved reviewing the content of the Web site for explicit economic development initiatives. These initiatives could include business promotion, workforce development, and ICT marketing, educational programs oriented towards ICT. Furthermore, distressed area issues were taken into account in this criterion, whereby poverty statistics, poverty alleviation

strategies and workforce development were sought in the content analysis. If the Web site met a majority of such attributes (of listing various mitigation strategies for distressed areas), then the site was assigned to the leader category, and the order of the categorization descended to the laggard category.

Perception Grouping Applied to Michigan Counties

The analysis was completed by dividing the 83 counties of Michigan into the four groupings listed in Table 2 below; these results were based on the four classes of Web site perceptions described above, and the degree to which each area's Web site conformed to these perceptions. The results of the perception groups then were assigned to four categories of k-economy economic development Web site "leaders," "contenders," "followers," and "laggards" (see Appendix A for an elaboration of these categories).

This was completed as a simple grouping methodology, with characterizations of the perception groups of each category being listed under the group. Within the laggard category, there were several counties that have a Web site through an external service provider but have a minimal or non-existent linkage with k-economy development criteria. Given the concurrent nature of web-site development it is difficult to capture all the possible web-development activities occurring in Michigan's counties by private and government organizations. Nonetheless, the counties having a web-site presence (maintained through an external service provider with little or no k-economy relevance) is simply worth noting, although it will not be included in the analysis.

Table 2
Grouping Methodology Based on Perceptions of the Web Site

LEADERS Advanced site with 8-10 "yes" answers on the framework	**CONTENDERS** Moderate site with 6-7 "yes" answers on the framework)	**FOLLOWERS** Mediocre site with 4-5 "yes" answers on the framewor	**LAGGARDS** Poor site with no web-site or no "yes) answers on the framework
excellent user friendliness and attractive GUI	**good user friendliness and less attractive GUI**	**mediocre user friendliness on the site**	**poor, with no Web site or unfriendly interface**
excellent knowledge driven and ICT content	**good knowledge driven and ICT content**	**mediocre knowledge driven and ICT content**	**poor knowledge driven and ICT content**
excellent answers to most questions on the framework	**good answers to most questions on the framework**	**mediocre answers to most questions on the framework**	**poor answers to most questions on the framework**
excellent economic development initiatives, including destressed area development	**good economic development initiatives, including destressed area development**	**mediocre economic development initiatives, with little or no mention of destressed area development**	**poor or no economic development initiatives mentioned on the site**

Leader Counties

Berrien County
Gratiot County
Marquette County
Oakland County
Saginaw County
Washtenaw County
Wayne County

Contender Counties

Clinton County
Delta County
Genesee County
Ionia County
Jackson County
Kalamazoo County
Kent County
Manistee County
Muskegon County
Schoolcraft County
Wexford County

Follower Counties

Alger County
Alcona County
Allegan County
Barry County
Bay County
Benzie County
Branch County
Cass County
Emmet County
Gogebic County
Hillsdale County
Iosco County
Iron County
Isabella County
Lapeer County
Livingston County
Macomb County
Mecosta County
Midland County
Monroe County
Montcalm County
Newaygo County
Otsego County
Ottawa County
Roscommon County
Sanilac County
Shiawassee County
St. Clair County

Laggard Counties

Alpena County
Antrim County
Arenac County
Baraga County
Calhoun County
Charlevoix County
Cheboygan County
Chippewa County
Clare County
Crawford County
Dickinson County
Eaton County
Gladwin County
Grand Traverse County
Houghton County
Huron County
Ingham County
Kalkaska County
Keweenaw County
Lake County
Leelanau County
Lenawee County
Luce County
Mackinac County
Mason County
Menominee County
Missaukee County
Montmorency County
Oceana County
Ogemaw County
Ontonagon County
Osceola County
Oscoda County
Presque Isle County
St. Joseph County
Tuscola County
Van Buren County

Perception Grouping Applied to Michigan Planning Regions

The same analysis was applied to the state's 14 planning regions. The planning region's leaders, contenders, followers and laggards are listed below.

Leader Regions

Region 6 – Tri-county Regional Planning Commission
Region 8 – West Michigan Regional Planning Commission
Region 9 – Northeast Michigan Council of Governments

Contender Regions

Region 1 – Southeast Michigan Council of Governments
Region 4 – Southwestern Michigan Commission
Region 7 – East Central Michigan Planning and Development Regional Commission
Region 12 – Central Upper Peninsula Planning and Development Regional Commission
Region 13 – Western Upper Peninsula Planning and Development Regional Commission

Follower Regions

Region 10 – Northwest Michigan Council of Governments
Region 11 – Eastern Upper Peninsula Regional Planning and Development Commission
Region 14 – West Michigan Shoreline Regional Development Commission

Laggard Regions

Region 2 – Region 2 Planning Commission
Region 3 – South-Central Michigan Planning Council
Region 5 – GLS Region V Planning and Development Commission

Scope of Analysis and Limitations

The scope of the Web site analyses was at the county and planning region scales. To the extent that a rich range of applicable Web sites exists, one might conduct further analyses at more micro local levels, such as at the scale of the city, township and even at the village and neighborhood levels; this would provide a comprehensive understanding of the competitive capacities of all areas and scales of the state. To date such a rich range and depth of such local-area *economic development Web sites* do not exist in Michigan or any other U.S. state. It is possible however to survey *general government services* that are available electronically on the World Wide Web. (Cyber-state.org November 2002).

The analyses that follow highlight the counties in Michigan that are "leaders" in incorporating S&T and ICT content in their economic development Web sites.

In addition to the discussion of county leaders, Appendix A describes the counties that fall under the "contender," "follower," and "laggard" categories.

Assessing Michigan Counties

Within the state of Michigan, there has been encouragement for several areas to acknowledge the knowledge economy realities and to promote local economic development according to global competitive standards. These areas are the growing ICT and R&D centers, and have strong complementary support through excellent education systems, sound economic development activities and a coalition involving strong public-private partnerships that help further their growth. This portion of the study analyzes these areas at the county scale, and categorizes them as "leaders." The counties are described below; they are listed alphabetically.

Berrien County

The county's economic development Web site is linked through several layers, but once one drills down, the site contains a wealth of useful information on: quality of life; economic development initiatives; a skilled workforce; and the Web site

meets the Graphical User Interface (GUI) requirements to be assigned to the leader category. The Web site is detailed. It also provides helpful information on distressed communities initiatives and lists categorically the area's varied industries, including medical and e-commerce firms. The site boasts the location of two large technology oriented firms like Whirlpool and Bosch and effectively markets industrial parks within the county.

www.berriencounty.org

Gratiot County

The county's strategic plan initiative is what exemplifies this county as a leader, as it incorporates several knowledge economy principles and is formulated with the help of a diverse membership board as well as citizens. The Web site is intriguing to view and it includes an excellent PowerPoint slideshow highlighting county developments. The county has made a clear strategy to attract and retain healthcare and technology related businesses, and has made a promise to change archaic laws to do so. The county economic development initiative has aligned itself with The Greater Gratiot Chamber of Commerce (www.gratiot.org), thereby allowing for cross sharing and promotion of economic development initiatives in the county.

www.gratiotcounty.com

Marquette County

The county is a stand-alone leader in the Upper Peninsula of Michigan and has incorporated and listed an aggressive strategy to promote and develop economic well being and an excellent quality of life is noted. The Web site boasts of having attracted companies like Delphi Automotive, Wisne and American Communications and also provides excellent workforce development initiatives to both employees and employers alike, within the county. The site provides an informative economic indicator link, and also states the importance of e-commerce and the linkages of the county with the global system of trade. The other web based informational and knowledge driven entities are as follows and are worth reviewing for their distinctive Graphical User Interface (GUI) and information:

www.mqtinfo.org
www.marquette.org/chamber/index.html
www.downtownmarquette.org

Oakland County

Oakland County's economic development plan was formulated with the help of University of Michigan economists and local county planners. The Web site has an excellent slideshow reviewing the 2002 economic outlook for the county. The county also has listed distressed area issues, one in particular being that the overall joblessness rate has improved. The Web site has excellent Graphical User Interface (GUI) and a good search capability. The site lists several foreign owned firms (technology related) in the area and has a progressive export-import policy and marketing agenda on the site. The economic development initiatives are propagated further through the complimentarity of automation alley (www.automationalley.com), a public-private organization that promotes business in the county.

www.co.oakland.mi.us
www.automationalley.com

Saginaw County

The county stands out as an exemplar in the vicinity of the "thumb area" of Michigan with what seems like an aggressive planning and economic development initiative. The county has an excellent 2020 plan outlining the growth strategies for the county, including a commitment to distressed areas and racial diversity. Although the economic development initiative has no direct presence on the homepage of the county site, the informational depth with respect to economic development is impressive. The county's vision (www.scv2020.org) is managed by a director and his team. The county also has used professional

consulting assistance to enable the shaping of effective policy that outlines economic development in the area. The county and its vision are supported by the Saginaw Chamber of Commerce (www.saginawchamber.org), which works closely with the county's economic development arm.

www.scv2020.org
www.saginawchamber.org
www.saginawcounty.com

Washtenaw County

The county emerges as a leader due to its award winning user-friendly Web site that has functioned to put the "E" in e-government. Washtenaw County has not listed much in terms of economic development, although the site has several complementary organizations linked; these links address economic development issues. The county Web site provides a consumer oriented side and answers many regulatory questions for the general public. The county has addressed directly distressed area issues of homelessness and affordable housing through the "Project Zero" enterprise. Complementary sites cover the technology business and economic development issues and one is led and directed by industry and academic informants from the University of Michigan and technology firms.

www.miceed.org
www.cob.emich.edu/usexport.htm
www.wdc-econdev.com
www.annarborchamber.org
www.annarboritzone.org

Wayne County

The county Web site provides useful statistical information on its site; it is relevant to the types of industry in the county and the largest employers. The county has linked the CEDS (Comprehensive Economic Development Strategy) information and has partnered with the University of Michigan to provide an economic outlook study. The county addresses distressed area issues through a program called Urban Recovery Partnership, which was formed to help distressed cities. The site is informative and links through to the economic development site, which in itself provides informational and knowledge driven content, although it falls short on the technology content or knowledge economy fundamentals. The county economic development services highlight business parks, brownfield redevelopment activities and a leading export zone through the Greater Detroit Foreign Trade Zone which had conducted trade of $20.7 billion in 1997.

www.waynecounty.com

See Appendix B for the interpretive details of the counties that were classified as "contenders," "followers," and "laggards."

Assessing Michigan Planning Regions

The Michigan Association of Regions (MAR) is an alliance, representative of the fourteen regional planning councils in the State. "A regional council is a public organization encompassing a multi-jurisdictional regional community" http://www.miregions.org. These sub-state regional planning organizations play an important role in economic development activities throughout the state. An economic development Web site analysis was conducted on all of the fourteen regions. A four-part categorization was derived; it was dependent on the perceived level of quality displayed by the Web sites and their economic development content. The analysis was intended principally to identify the knowledge economy leaders and contenders among the regions of Michigan. In contrast to the county level of ED Web analysis, the regional planning councils lack ICT and knowledge economy content on their Web sites. This was a general pattern with only a few exceptions where regional councils have mentioned the use of ICT in their economic development planning agendas. As in the county level discussion, the analysis categorized the regions as leaders, contenders, followers and laggards. See Appendix A for further explanation.

Leaders

Region 6 – Tri-county Regional Planning Commission

The planning commission's site has a wealth of reports and information, including a Trends 2020 report which projects population, employment and other demographic characteristics through the year 2035. The site also provides for GIS mapping and links the various local governments that are associated with the commission. The site also has a link specifically geared towards children on their site. Furthermore the commission's site provides online response forms to town hall forums missed by the public, and actively promotes the public participation in these forums to get feedback on issues varying from transportation and growth to economic development. In terms of economic development, the commission seems to work with and support a non-profit organization called the Regional Economic Development team (RED). They are a diverse body comprised of government, business and education (amongst others) officials. The RED team provides economic development strategies and guidance to the commissions geographic area, and have their own web-site linked directly through the planning commissions site. The RED teams web-site provides for online newsletters and recent events and also has an online form for requesting information and or queries. Both sites have a fairly decent GUI, with an ease of navigability.

www.tri-co.org

Region 8 – West Michigan Regional Planning Commission

This regional planning council emerged as one of two k-economy ED Web "leaders" amongst the state's regional economic development associations. The economic development efforts and planning strategies are structured well on the Web site, with input from elected officials as well as the general public. The region's efforts outline a regional economic development initiative, stating the region's intentions to promote development equally throughout the area. Region 8 also has an industrial sites database, which is a key point of interest for future businesses relocating or investing in the region. Furthermore, the economic development efforts include grant writing and technical assistance, as well as capital improvement and access programming. The region has listed a U.S. Economic Development Administration mandated Comprehensive Economic Development Strategy (CEDS) on its site. The regional planning council's Web site lists its online newsletter link for the general public to access and also has posted the council's meeting schedules, thereby promoting a democratic environment and a platform for dialogue across the region.

www.wmrpc.org

Region 9 – Northeast Michigan Council of Governments

This region has a comprehensive strategic planning process, including a varied viewpoint in the planning agenda process through a board of directors that represents all the counties within the regional council. The regional council has made an effort to inform the public about the region's weaknesses, which suggests that there is an understanding of the region's capabilities as well as its needs. This region has stated on the Web site that business development is being hindered due to a lack of fiber optic connectivity, but does mention that the schools and local libraries are wired through broadband. The region also has made significant effort to improve the workforce capability, including a career development report card study. The regional council also promotes www.nemsca.org, a social service organization that provides services for the youth, individuals and the larger community. The regional council boasts of a good quality of life and mentions a "Greenways Project" initiative that is currently underway in the area.

www.nemcog.org

Contenders

Region 1 – Southeast Michigan Council of Governments

Popularly referred to as SEMCOG, this regional council falls under the contender category simply because of its lack of ICT and knowledge economy content on its Web site. The planning process is well structured, and has a comprehensive board and executive board that have ownership of the planning strategy through representation on planning strategy committees. The planning committees include members from environmental, business and special interest groups, thereby maintaining diversity for planning strategies. The SEMCOG Web site addresses distressed area development issues, and specifically states the importance of creating affordable housing and community revitalization within its boundaries. SEMCOG also has created ownership on these and various other issues, through creating governing oversight committees, whereby the executive board members sit and steer the representative committees. SEMCOG has an extensive list of downloadable publications and newsletters on its Web site; the site also provides meeting schedules for the community and executive planning boards. SEMCOG is one of the few planning councils that has made a concerted effort to mention business development and trade as part of its economic development strategy; this is done by referring to the I-94 trade alliance.

www.semcog.org

Region 4 – Southwestern Michigan Commission

This commission incorporates some of the leading counties and knowledge economy zones at Michigan's southwest corner of the state, and has representation from the various townships in the planning jurisdiction. The Web site states that the Commission's goal is to establish a digital transformation of the census and GIS data, to make it available to everyone. The economic development web site is still in its developmental stage, but the Graphical User Interface (GUI) shows some promise and potentially could be interactive and knowledge economy driven for the Commission area's residents and users. This is one reason why the area is assigned to the "contender" category. The Web site lists an annual report for the Commission area; it describes planning and other development activities. The Web site states that the commission office is linked through DSL Internet connections and notes the importance of broadband to the area. The board members' meeting schedules are linked through the Web site, and a newsletter is available in a downloadable format.

www.swmicomm.org

Region 7 – East Central Michigan Planning and Development Regional Commission

A fifteen-member committee, comprised of representatives from fourteen counties and one member from the Chippewa tribe, manages regional planning and economic development in this area. The Web site is informational (providing simple basic information about the area), but is not knowledge economy driven or detailed. The site does list the availability of grants for the various counties in the planning jurisdiction, including some programs that benefit distressed area issues, such as improving the economic base in the region. The Web site provides committee meeting schedules and agendas and lists some of the past and concurrent community improvement projects.

www.ecmpdr.org

Region 12 – Central Upper Peninsula Planning and Development Regional Commission

The region has partnered with the Michigan Small Business Development and Technology Center (MI-SBDTC), Grand Valley State University's Seidman Business School, 1st Step, Inc. and the U.S. Small Business Association as

depicted on their Web site. The MI-SBDTC for the entire Upper Peninsula is housed in the region's main offices in Escanaba and thus this region benefits from the small business services provided by the agency. The Web site states that the core focus is to develop the region's small business and to provide business development assistance to new small businesses wishing to relocate to the area. The Web site has excellent GUI and has listed success stories within the region for attracting businesses, developing economic activities and promoting small business marketing strategies to potential businesses. The Web site boasts of excellent demographic studies and analysis that it has conducted for the region, although the web-links to a request page and it is not easily accessible. The Web site also states that the MI-SBDTC along with 1st Step, Inc. have hired a director to promote economic development, under a new agency titled the Upper Peninsula Economic Development Association (www.superiormichigan.org). Furthermore, the web-site also links other regional partners and local economic development agencies and commerce chambers that would provide economic and business assistance.

www.misbtdc.org/region1/
http://www.gvsu.edu/ssb/
www.superiormichigan.org

Region 13 – Western Upper Peninsula Planning and Development Regional Commission

The region promotes itself as a tax free zone through Michigan's Renaissance Zone program. The web-site actively market's various available sites for business and residential location, selling the salient features of tax-free location benefits. Some of the development sites listed, boast of an easy airport access to facilitate commuting and travel, and of having good fibre optic telecommunications connectivity. The Web site also lists a few economic statistics about the region. Furthermore, the site lists an excellent workforce capability and states the presence of technical training programs within the region. The site provided basic minimal information as it pertains to economic development, although no specific ICT related development ventures are mentioned. The Web site does not have an extremely attractive GUI, but there is an ease of use for the end-user. The Web site promotes the excellent quality of life in the area and has links with the Western Upper Peninsula Travel and Convention Bureau through their website (www.westernup.com). The Web site also links with a local county (Gogebic County) level economic development agency, promoting business development within the county and the region.

www.westernup.com
www.wuptaxfree.org
www.gogebic-edc.org

Followers

Region 10 – Northwest Michigan Council of Governments

The regional planning and economic development board for this region is comprised of a diverse group of members. The region emphasizes several workforce development programs as well as a small business center, which is highlighted on the Web site. Although not technology oriented, the region's Web site does address business assistance issues, including, workforce development, grant writing and boasts of a small business assistance center. The Web site does contain links and downloadable forms of the regional planning newsletters and other newsletters that are pertinent to the area.

www.nwm.org

Region 11 – Eastern Upper Peninsula Regional Planning and Development Commission

The site provides basic economic development information and has downloadable CEDS plans from the current to previous years. Furthermore the site also is under construction, but when

revamped they will provide an online survey form for respondents to participate in the CEDS process. They have excellent contact information and government links to various departments both state and federal that could guide potential queries to the appropriate site. They have explicitly stated and linked the rural communities assistance program, which provides help to distressed rural communities. The site also lists an excellent arts and culture link, with local information as well as the possibility of obtaining grant monies.

www.eup-planning.org

Region 14 – West Michigan Shoreline Regional Development Commission

The region has assigned a specific planner, who is in charge of economic development activities. Compared to other regions, the Web site is not highly informative and does not mention any technology or knowledge economy indicators. However, the site does state what the regional economic development initiative is, and briefly mentions the Commission's work on its comprehensive economic development planning strategies.

www.wmsrdc.org

Laggards

This category of "laggard" includes the regional economic development and planning regions that do not maintain a Web site or rank poorly in the web-site analysis. These planning regions are as follows:

Region 2 – Region 2 Planning Commission

The site provides only a mission statement and general contact information for various regional representatives.

www.region2planning.com

Region 3 – Southcentral Michigan Planning Council

Region 5 – GLS Region V Planning and Development Commission

Multi-Agency Approach to k-economy Economic Development in Michigan

The Web site analysis revealed that, in certain instances, counties do not provide for their own technology-based economic development and services. In some cases, these services are provided through other local agencies, be it multi-county or regional and in addition through some public-private organizations. For certain county areas, the technology-based economic development services out-sourced to the local chamber of commerce, or to a private non-profit organization that promotes economic development in the county area. With reference to this particular Web site analysis of Michigan, there are a few exemplars (albeit not a comprehensive list of such organizations throughout the State) that should be highlighted as leading organizations providing k-economy fundamentals on their Web site that span multiple counties or regions. These three entities have clearly outlined economic development initiatives on their Web site for the respective regions they serve. They are listed and explained as follows:

In the Grand Rapids area

In and near the City of Grand Rapids there are the following entities that have listed economic development as their mission and actively promote k-economy fundamentals through their web-sites. These entities promote economic development initiatives that are at multi-county and sub-county scales in the West Michigan area and in the vicinity of the City of Grand Rapids. A few of these entities are linked below:

West Michigan Regional Alliance:- www.wm-alliance.org

Grand Valley Metropolitan Council:- www.gvmc.org

GrandNet:- www.grandnet.org

Community Media Center, Grand Rapids:- www.grmc.org

In the Upper Peninsula

In Michigan's Upper Peninsula, there exists a supra-regional organization that provides technology-based economic development initiatives and promotes k-economy fundamentals through its interactive web-site. This organization has partnered with several counties, and regional planning agencies as well as with private corporate firms to provide economic development initiatives throughout the Upper Peninsula of the State. The organization and site are listed as follows:

Upper Peninsula Economic Development Alliance:- www.superiormichigan.org

In Southwest Michigan

There is a comprehensive agency that promotes economic development through its interactive web-site. The organization has clearly listed k-economy fundamentals on its site, actively marketing the Southwest Michigan regional area as a hub for technology and life-sciences oriented business. The organization and the site are listed as follows:

Southwest Michigan First:- www.southwestmichiganfirst.com

Other Regional Entities promoting Web based Economic Development

Understanding the dynamic nature of web-site and technology enabled communications, there is the possibility of multiple agencies providing and promoting economic development strategies through their web-sites. Therefore, this analysis does not attempt to contain a comprehensive listing of such agencies, but leaves the possibility of such entities existing and for providing valuable services in the real of economic development.

Another regional agency that promotes economic development is the "Heart of Michigan Planning Group/" Mid Michigan's Network, comprising of a consortium of school districts and counties in Mid Michigan. They were established to connect the Mid-Michigan school districts through high technology broadband and optical fiber and provide for cutting edge technology led education in the schools. They are also involved in providing for high-speed telecommunication services in the Mid Michigan area, and have listed an active marketing strategy agenda to promote high-speed telecommunications through their network for the entire region they serve. The organization and the site are listed below:

Mid Michigan's Network:- http://www.midmichigansnetwork.net/

Conclusion

Michigan's Knowledge Economy Reality

In analyzing the knowledge economy driving forces within the state of Michigan from the economic development Web site-based analysis, one may discern a pattern of a continuum of "leaders" through to "laggards." In essence, the "leaders" are the state's local and regional boosters of economic development, whereas the "laggards" risk falling behind in this era of the highly competitive global knowledge economy. This highly uneven pattern of economic web-site development will serve to dampen Michigan's competitive position relative to the leading technology-based states in the U.S. In fact, only a handful of Michigan counties and planning regions are grouped in this study's "leader" category. Furthermore, only a few have knowledge economy content, strategies and incentives on their Web site. To reverse this sub-optimal development, state agencies and lawmakers, the business and academic communities all should coordinate with Michigan's local and regional economic development agencies, so as to plan and better position the state competitively in the global knowledge economy.

Michigan's future

The state of Michigan may have a lot to look forward to in the future. Michigan may be poised to compete successfully in the global knowledge economy, through its technologically advanced auto industry, which is researching and working on cutting edge alternative energy technologies to

embedded microprocessor developments for the automobile. Furthermore, with the established R&D activity at supplier firms like Covisint, Visteon, Compuware, Siemens and Lear amongst others, there is a significant presence of ICT-related ventures throughout the state. Not only is Michigan relying on the traditional automotive firms, but also established companies like Whirlpool are creating smart and energy efficient home appliances out of its West Michigan headquarters, through artificially intelligent enabling technology. The state government also is involved in implementing the Life Sciences Corridor initiative, which is developing in conjunction with Michigan's major research institutions and private-sector corporations. The state has mandated broadband connectivity to be developed and distributed across Michigan (http://www.michigan.gov/documents/356-Broadband_Brochure_20994_7.pdf). Also, there are various nonprofit organizations involved in the assessment and implementation of these developments, e.g., Cyber-state.org.

Broadband, ICT and an effective Web site would promote state cluster development and allow for a global reach

By developing and creating an affordable broadband network throughout the state, the local and regional economic development agencies under study here would have access to and can have the ability to create attractive and dynamic Web sites. Furthermore, this connectivity would enable the laggard areas to tap into the network and become leaders. They then can seek spillovers in technology and R&D economic development benefits; mutually beneficial complementarities can be planned and executed. An example of this potential might involve tapping into the potential of the technological workforce of Upper Peninsula residents who cherish their surroundings, but cannot find related employment in the area. This enhanced connectivity would expand their opportunities, and their experiences could create spin off companies in the area, enabling economic development. This would not only allow for the development of the "laggard" areas, but also create cross-county and cross cluster area development initiatives so as to promote economic development throughout the state. This networked-based economic development should not be limited to Michigan's sub-state areas; linkages also should be developed globally. Promotion of tourism, furniture and smart office system technologies, and development of technologically advanced techniques in primary industries, all can serve to nurture a competitive and educated workforce that can be marketed globally. This global interconnectivity would promote economic development within the state and create knowledge economy opportunities for Michigan residents. In order to do so, the regional and county economic development agencies should be encouraged to create effective Web sites, amongst other initiatives. The Web site should be both informational and knowledge driven in content, thereby operating to attract knowledge economy ventures throughout the regions of Michigan. By incorporating these knowledge economy drivers in their planning and strategic agendas, local and regional economic development agencies would boost Michigan as a competitive state in the global knowledge economy. An important one place for a definitive start is the establishment of a fully communicative Web site and one based on creative and effective Web development strategies that are designed to attract knowledge economy enterprises and knowledge workers.

Web site development: A few suggestions

Through the above analyses it was found that some Michigan counties and planning regions have placed an important focus on putting k-economy economic development fundamentals on their Web sites. However, the information and content provided varied depending on the sub-state area under investigation and these variations are documented and reviewed throughout the paper. These variations extended from excellent website's in the "leader" areas to the poor or non-

existent sites in the "laggard" areas. This closing section provides guidelines that could be adopted by Web site planning teams and webmasters so as to improve local governmental services, as well as compete in the global knowledge economy. It should be noted that the extent and detail of a Web site development should be contained within the community's resources, including, but not limited to staffing and financial constraints. Furthermore, strategic planning should be done before undertaking the web-site development venture, so as not to exhaust the community's resources, while yet maintaining the ability to develop an effective and creative Web site.

With relevance to k-economy economic development initiatives, the web-sites and web development teams should consider the following suggestions as simple guidelines that could promote effective communication, while enhancing the perception of economic development potential of the local and regional area:

- In order to compete in a global knowledge economy, the economic development Web site should provide for multi-lingual capabilities. This could be done by reviewing the links local businesses have with foreign firms and start by promoting those particular languages as options for the web-site visitor.
- Economic development Web sites should provide for a "portal" or one-stop shop services, thereby enhancing the visitor's experience and making it easier to search for government and other economic development services through inter-linkages.
- Economic development Web sites should provide online documentation for essential government forms, that could make it easier for the residents and businesses of the local community, and enable visitors to procure these forms at ease. These could be simple local tax forms to building code renewal forms.
- In addition to providing downloadable forms, an advanced Web sites should provide for online completion of such forms, including the acceptance of payment through secure means.
- Economic development web-sites should be encouraged to create comprehensive databases, which are either linked or directly accessible on a site with search capabilities. These databases could contain vital demographic and economic data, pertinent to both the individual and corporate visitors to the web.
- The economic development Web sites should provide for excellent interactive media, including Power-Point slide shows, flash movies and attractive graphics that go beyond the simplicity of a pleasant viewing experience for the visitor. The movies, slides and graphic images should promote the local area in a positive light, accenting the local business, climate, culture and other livability factors.
- Finally, the sites should be accessible through both high-speed and dial-up modem connections and the design and content criteria should be easily accessible for viewers with both the above mentioned means of connectivity.

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Appendices

Appendix A.
Categories of K-economy Economic Development Web Site Perceptions

E-readiness studies (e.g., Kirkman, et.al. 2002) have drawn on the terminology of traditional diffusion of innovation theory. In this analysis, we too are adopting the following categories to represent the degree of perceived preparedness of Michigan's counties and planning regions for engaging in economic development intended to compete effectively in the global knowledge economy: "leaders; contenders; followers; and laggards." These terms are not intended to convey any pejorative meaning; rather they are used to identify relative position along a multidimensional combination of k-economy drivers or factors. For example, the e-readiness research methodology of the Economist Intelligence Unit (May 8, 2001) employed six classes of variables, each of which contained many individual indicators. These were used to rank sixty countries from around the world.

It should be noted that these e-readiness terms are an adaptation of the traditional diffusion of innovation terms that were put forth originally by Everett Rogers (1983). Rogers used five categories of innovators and adopters and he identified the proportion of such adopters that typically comprise a normal empirical distribution of innovators: (1) innovators (2.5%); (2) early adopters (13.5%); (3) early majority (34%); (4) late majority (34%); and (5) laggards (16%).

The original diffusion of innovation theory included some of the following attributes and roles in the process of innovation adoption:

> **Innovators**; among the first individuals and organizations to experiment with a new technology; often has good contacts with external knowledge sources and peer groups; internally-motivated; and performs the role of launching new ideas byimporting innovation from outside.
>
> **Early adopters**; generally seen as opinion leaders; respectable; known for judicious innovation decisions; often larger organizations with more resources; would-be adopters of innovations look to early adopters for information and counsel.
>
> **Early majority**; more deliberate adoption of innovation beforethe average group of adopters; externally motivated; seldom in leadership role; they play the important role of linker connector between early adopters and late adopters.
>
> **Late majority**; adopts innovation later than the average; adopts more for economic or peer pressure reasons and less for the usefulness of the innovation itself; less willing to risk scarce resources; most of the uncertainty of the innovation must be removed before adoption.
>
> **Laggards**; the last group to adopt; often have limited resources and unwilling to risk them; points of reference are the past; they play the role of counterbalance to innovators and demand fail-proof ideas.

Some of the e-readiness studies have adapted the original diffusion of innovation categories. In general, the innovators have been designated the "leader' e-readiness category. The early adopters have become "contenders." The early majority and late majority categories have been combined to form the e-readiness group, the "followers." Lastly, "laggards" have remained the same under both classifications.

In deriving the four e-readiness categories, six sets of variables and their weights have been employed by the Economist Intelligence Unit: (1) connectivity (30%); (2) business environment (20%); (3) e-commerce consumer and business adoption (20%); (4) legal and regulatory environment (15%); (5) supporting e-services (10%); and (6) social and cultural infrastructure (5%). The resultant four e-readiness groupings are:

> **leaders**; these are areas where most of the elements of e-readiness already exists;
>
> **contenders**; areas with satisfactory ICT infrastructure and facilitative regulatory environment, but some elements of e-readiness are lacking;
>
> **followers**; places where the beginnings of e-readiness have been initiated;
>
> **laggards**; these are areas that are under risk of being uncompetitive in the global knowledge economy; they face digital development challenges; and they are relatively unconnected to the networked world (Cf., Economist Intelligence Unit May 8, 2002: 3).

These groupings have analogues in the Michigan k-economy economic development Web site analysis context, both at the county and the planning region scales.

Appendix B
Discussion of County Web sites classified as Contenders, Followers, and Laggards

Contenders

Clinton County

The county has linked their economic development plan, which was created through a planning process involving a variety of viewpoints. The plan has no mention technology oriented initiatives, but they do promote the provision of providing equitable and cost-effective services to all county residents. The plan also lists a few economic development incentives, such as tax abatements, cheap utilities and a conducive environ for businesses to locate. The GIS department also links both residential and commercial property maps for relocation/location purposes. The web site does link a quarterly newsletter and has linked statistical data and surveys about the county.

Delta County

The county Web site is informative and they overtly mention the importance of ICT and broadband connectivity through their County. The County has also completed a survey on the quality of life factors, and promotes itself as an excellent area to live and work. The site also lists the presence of business and technical help for start-up firms and mentions the good workforce in the area, along with the proximity to cities like Milwaukee and Chicago. The site lists the chamber of commerce's meeting minutes and has online meeting schedule's keeping all the stakeholders informed. The county aggressively promotes its natural surroundings, and states the presence of several art festivals and museums within the County.

Genesee County

The County Web site provides a detailed annual report on the site, although it is not technology related. Their site clearly addresses distressed community initiatives, through the linking of information on housing programs, job training services and transportation funding, and their addressing of underserved areas in the county through their CEDS plan. The county provides online version of the meeting reports and minutes as well as a downloadable newsletter.

www.growthalliance.com/gamain.html

Ionia County

The county lists the county Master Plan on their site, and states an all inclusionary process that helped create the plan (county wide survey and public workshops were conducted). Their plan specifically has a socio-economic assessment that addresses distressed area needs within the county. The Web site has a link for feedback and comments and the county board of commissioners meeting times are listed online. The site also links excellent statistics on the existing workforce ability and an economic development research report done within the county.

www.ioniachamber.com

Jackson County

The county site has an excellent GUI and a very navigable interface, with a search option provided for through their site. The site lists and provides brief information on the various county departments. The county highlights their recreational offerings through a special link. The site does fall short in providing information related to the k-economy or economic development. The county site lists the county planning commission minutes and the meeting schedule online, along-with a community report card (The Community Report Card contains the following topics: Culture and Recreation, Civic Participation, Health and Well Being, Status of Families, Housing, Economy, Education, Workforce Skills, Public Safety and Services.)

http://www.co.jackson.mi.us/

http://www.msue.msu.edu/jackson/

Kalamazoo County

Kalamazoo County carries out their economic development work along with Southwest Michigan First, a quasi-public agency promoting the area. Their mission clearly addresses the need to serve distressed areas within the county, stating their aim is to strengthen diversity and stability of the economic base in the community. The site lists the county planning commission minutes and meeting schedules and provides a link to the 'Kalamazoo Planner.' The county also promotes an excellent quality of life with the presence of beautiful lakes and rivers.

www.southwestmichiganfirst.com

Kent County

Kent County's economic development initiative seems to be managed by the chamber of commerce, which is located in Grand Rapids. The county seems to have partnered with several organizations an their informative web links are listed below.

www.grandrapids.org

www.rightplace.org

Manistee County

This county promotes economic development activities very effectively through their site. They have provided excellent statistics on the county's largest employers and have the employment broken down sector wise. They also promote various business assistance programs through their downtown development authority and economic development agency. The site also markets a CD-ROM about the county and has an excellent newsletter that is linked online. The county promotes itself as having a historic area, a thriving downtown in Manistee and close proximity to the lakes.

www.manisteedowntown.com

www.manisteecounty.com/mecca.htm

Muskegon County

The county site promotes Muskegon as a perfect place to live, work and play. The site also links the presence of a technology park near the airport and the Verizon SmartPark, a site with heavy telecom infrastructure. The site also has a virtual tour of the county and promotes the location of technology businesses in the area. The site provides a wealth of information on the quality of life in the area. The site links several local universities and lists the presence of a State established Renaissance Zone, along with a plethora of business incentives for companies.

www.muskegoon.org

www.muskegonareafirst.org

Schoolcraft County

The county site lists an economic profile and statistics link, which is fairly informative. The county seems to have an excellent telecommunications infrastructure, and the area has good technology training through the universities in the area. The county has specifically involved itself in a venture called Northern Initiatives, providing sustainable economic development for the Upper Peninsula of Michigan. The site has good graphics, a movie depicting life in the area and promotes a beautiful quality of life in the county. The county site also links small business incentives and provides employer services, including workforce development.

www.northerninitiatives.com

Wexford County

The site has a decent GUI and provides a wealth of county related information. The county has teamed up with Michigan State University to create a county fact book and an asset mapping initiative, which may prove useful to plan for and attract economic development activities. The official county site is yet in the developmental stages. Furthermore, the working fact book is an excellent planning document that lists land-use policies along with economic, environmental and governmental requirements for the county area and is available online.

http://35.8.121.133/wexford_county/index.html

Followers

Alger County

The county's Web site is mediocre at best, and provides very little information on economic development. The site does link the Alger County Community Foundation, that is a grant-making agency for the county area. The county boasts an excellent quality of life in the area, with the presence of Lake Superior and other winter sporting activities.

www.algercounty.com/communityfoundation/algerabout.htm

Alcona County

The county does not provide it's own web-site, but is managed by the Huron Shore Chamber of Commerce. The site does provide some information on local attractions and highlights the areas scenic and natural beauty. The web-site simply lists the various and important governmental information on their site along with contact information. The site briefly mentions the Alcona County Economic Development Corporation and states their mission, but this the extent of the information provided other than a contact email: acedc@kwcom.com.

http://www.huronshoreschamber.com/contents_page.html

Allegan County

The county lists their mission online stating their aim is to provide and instill economic activity in the countywide area. The site does link small business association type organizations and their economic development agency in the county also provides for small business counseling. The county site boats the presence of technology and manufacturing firms like Johnson Controls, Haworth and pharmaceutical firm Perrigo. The county also lists the presence of excellent transport networks that facilitate business, and lists the geographic proximity to cities like Holland and Kalamazoo for the county residents and businesses alike. The site also lists the presence of a plethora of outdoor recreational activities and antique markets, as well as several leisure activities in the county area.

www.accn.org/~aceda

Barry County

The Web site is mediocre, but it does link up with the Barry Chamber of Commerce that seems to facilitate economic development activities in the county. The

site does link up with an email for site improvements and suggestions but the information provided for the county is sparse.

www.barrychamber.com

Bay County

The Web site was still under construction, but they have a very interesting movie graphic introduction to the site and the county area. They do link up a few economic development sources, specifically a few sub-county agencies.

Benzie County

The county's economic development seems to be channeled and managed by the chamber of commerce. The chamber's site provides for excellent demographic, recreational and other quality of living type of statistics. There is no mention of technology or economic development related activities.

www.benzie.org

Branch County

Branch county's economic development activities seem to be managed by the chamber of commerce. The chamber's site has an active database of companies located in the county listed on the site. The chamber site also provides for information regarding the events and meetings it holds for the 2002 year.

www.branch-county.com

Cass County

The county site lists the presence of a business development center, which is involved in promoting economic development in the county. The center has an incubator that hosts small manufacturing oriented firms, providing for tax abatements and other business incentives to small companies. The site also lists the geographic proximity of the county to larger towns such as Elkhart, IN and South Bend, IN, while maintaining "small town" characteristics throughout the county area. Furthermore, the county lists the presence of a small college and a small airport in the area.

Emmet County

The Web site lists that a planning and zoning commission was formed specifically to take inventory and plan for population and economic changes. The county has listed specifically that it provides services to localities that are distressed, understaffed or those who do not have the resources for planning. The county site also boasts beautiful natural landscapes with proximity to the lake Michigan shoreline. The site also lists the presence of a small airport and industrial parks that are neighboring the airport area. Furthermore, there is a small college (North Central Michigan College) in the county and excellent public schools and regional hospitals in the area.

www.petoskey.com

Gogebic County

The site lists a database of existing businesses in the county area, although not directly technology related. The site does list the presence of tax-free renaissance zones, as established by the State of Michigan and that the county provides for technical and financial assistance to companies wishing to locate there. The county boasts of an excellent quality of life, with a plethora of outdoor activities, proximity to forests, the lake and the ski slopes of the Porcupine Mountains. The county also lists good healthcare facilities with the proximity to cities like Minneapolis and Duluth in Minnesota.

Hillsdale County

The county's Web site lists their mission that is oriented towards farmland preservation and sustainable land-use. The site provides a link to their comprehensive plan and lists several key demographic and statistical figures about the area. The site lists the ongoing work on the comprehensive economic development strategy, planning newsletters and workshops that the county conducts for small local units of government.

www.hillsdalecountychamber.com

Iosco County

The county site lists a diverse economic and industrial base in the area. The site briefly lists excellent quality of life factors, including good hunting, fishing and outdoors recreation activities. The county has set up an office of economic adjustment that markets and promotes business development at an old Air force Base. They program is set up to attract a diverse industrial base, and they promote actively the possibility of heavy freight moving businesses due to the excellent air and rail transport networks. The site also lists the presence of excellent educational facilities and cultural activities in the county.

www.oscodatwp.com

Iron County

The county's site lists the mission statement that underscores the importance of improving distressed areas in the county through economic development. The site also lists a database of area business, although this is mostly comprised of industrial firms. The county boasts of an excellent quality of life with good outdoor recreation activities in the area. The Web site lists a few business relocation incentives the

county provides and also links up to an exhaustive list of economic development agencies in Michigan and funding sources. The county's economic development activities, seems to be marketed by the chamber of commerce as well.

www.tryiron.org

Isabella County

The county site is mediocre at best, but they do link their county commissioner's meeting minutes and schedule online. They also provide for a news link on their site, but it is not very informative. The county has however listed their receipt of a grant from LinkMichigan, to launch a regional telecommunication plan for the area. The county does link the presence of a large college (Central Michigan University), and links the Mt. Pleasant Chamber of Commerce on their site.

www.mt-pleasant.net/coc/index.html

Lapeer County

The site has an excellent database of existing employers in the county, especially a few technology related manufacturing firms and automotive firms as well. The county has good demographic and statistical information listed, including distressed areas where the income/poverty is low/high. The site links several IT initiatives in the county including Lapeer County Information Depot and also efforts by the Lapeer Chamber of Commerce. The site also lists the county has an excellent healthcare system, good schools and close proximity to larger cities like Detroit and Flint. The site also markets the county as having a good transport network, including small airports and an excellent freight and rail passenger system.

www.lapeer.org

www.lapeerareachamber.org

Livingston County

The site is mediocre at best. The planning commission has overtly stated in their mission that their role is to benefit all residents in the county. The site does provide for ordering of useful guidebooks on the county, as well as a few maps and a databank for a nominal fee. The site does market that the county has an excellent quality of life, with lots of recreational amenities for the residents. The county boasts of a good education system, as well as having a favorable geographic location for connectivity to Detroit, Ann Arbor or Flint.

Macomb County

The site promotes a joint county effort between Macomb and St. Clair counties, to tackle distressed area and economic development issues. The county's specific economic development link is still under construction though. The county does provide a small business development center and this marketed effectively on the Web site. The county site also has an excellent GIS homepage, providing a newsletter and highlighting good GIS projects for the county.

www.macomb-st.clairworks.org

www.co.macomb.mi.us/mcsa/index.htm

Mecosta County

The site provides excellent information on existing businesses and statistical information on the economic climate of the county. Few of the businesses include Wolverine Worldwide, Big Rapids Components and good workforce development activities at Ferris State University to complement the business climate in the county. The county specifically addresses technology development, with the establishment of a Tech Transfer center at Ferris State University and lists the importance of a telecommunications and fiber optic network to county businesses. The site also boasts of the county having an excellent quality of life and also having one of the State's Renaissance Zones.

Midland County

The county site itself is mediocre, but the county has established partnerships with the chamber of commerce as well as the city of Midland. The county's economic development agency was not linked through the main homepage. The economic development agency does provide business assistance and also has a listing of sector wise employment/employer information. The economic development agency overtly mentions the importance of attracting electrical, pharmaceutical and research and development firms to the county.

www.midlandedc.org

www.macc.org

Monroe County

The county Web site itself is mediocre, but it provides links to the cities of Bedford, Milan and Monroe, all of which are excellent sites.

www.bedfordmi.org/departments/planning_department.htm

www.ci.milan.mi.us/devel.shtml

www.ci.monroe.mi.us/planning.htm

Montcalm County

The Web site provides for excellent socio-economic information about the county. The site also lists all the county area businesses. The Web site does list the various recreational amenities in the county, and the county boasts of having festival markets, museums and cultural exhibits.

www.greenvillechamber.net/

Newaygo County

The site provides for good statistical information on businesses in the area. The site lists that certain schools have received grants to wire schools with broadband connectivity in the county. The county also has fiber optic wired industrial parks, which the site promotes. They have also tackled distressed area issues well, whereby channeling the economic development efforts to bring high-tech jobs to the rural county. The county site also has links to financing and other small business development assessment schemes, as promoted by the county.

www.ncedo.org

Otsego County

The county site has an excellent online survey/ polling link, where residents can log on and answer questions. There is a direct link to the economic development agency on the county's Web site but there is a lack of information on the linked site. The county has partnered with the Gaylord Area Chamber of Commerce, which does have an excellent web site with good information.

www.gaylordchamber.org

Ottawa County

The county lists their local industrial base as well as the business climate in the county. The economic development plan stated, briefly mentions that the county wishes to mentor areas of distress to development zones of growth and prosperity. The site clearly mentions several business incentives for companies wishing to locate in the area including, a strong workforce, lower utility charges and tax abatements. The county also has a small business development center, which provides services to companies. The quality of life is also promoted well in the county, with the site listing the county's proximity to both Detroit and Chicago while being affordable.

www.gis.co.ottawa.mi.us/

Roscommon County

The county's economic development efforts seem to be channeled through the Higgins Lake and Houghton Lake Chamber of Commerce. Both these sites provide good business and statistical information about the area's business climate.

www.houghtonlakechamber.com
www.hlrcc.com/

Sanilac County

The county web-site is still in a developmental stage as is the economic development site. The site does have an ease of use and decent GUI, while providing for a wealth of contact information on the various county departments. The site also links up with several local cities, townships and villages in the county.

www.sanilaccounty.net
www.sanilaccounty.org

Shiawassee County

The county Web site is mediocre and does not provide for any economic development related information. The county site does link the Owosso-Corunna area chamber of commerce site, which provides excellent information about the county. The site also links the ShiaNet Institute for Technology, which has partnered with a local college to provide technology training and workshops for area residents.

www.shianet.org/pages/techcenter.html

St. Clair County

The economic development site is not directly linked through the county's homepage. The economic development alliance of St. Clair County does provide some good statistical information about the county. The county is also promoted through the Port Huron Chamber of Commerce Web site.

www.edaofstclaircounty.com
www.port-huron-chamber.org/

Laggards

Alpena County

The Web site and the information content are extremely poor. The only relevant knowledge economy indicator the site does provide is a link to the quality of life factors, such as lakes and state parks within the county area.

Antrim County

The Web site does have a tourist and countywide information link on the homepage, but the site is under construction. The site does inform the web-site users about the county planning department's agenda and meeting minutes, which are downloadable.

Calhoun County

The site promotes the county being geographically close to the cities of Detroit and Chicago. Furthermore, the site mentions the location of the Kellogg Company and a few colleges in the county area. The site does link with the city of Albion's economic development agency.

www.edc-albion.mi.us

Chippewa County

The county provides for the planning commissions meeting minutes and schedule online. The site also

lists a statistical information link, providing information such as population and local taxes data.

Crawford County

The web-site simply provides informational links to the various county departments including contact information. The GUI is poor. The site does provide a schedule to the board of commissioners meetings along with the meeting agenda and downloadable meeting minutes.

http://www.crawfordco.org/choices.htm

Eaton County

The site only provides new business listings and new business filings through the county area.

Grand Traverse County

The site does link a Focus 2020 Master Plan on their site, but this is a broken link and needs to be fixed. The site does provide meeting minutes and the schedule for the planning commission online.

Ingham County

The county Web site provides for very little or no knowledge economy indicators. The site however does link the various county grant programs and some community agency grant information.

Kalkaska County

The site exists, but provides no information regarding any knowledge economy indicators.

Lake County

The county lists the quality of life indicators on their site. Some of them include proximity to the lake Michigan shoreline, good outdoor activities and an excellent network of rivers for trout fishing. The county promotes itself as a "great place to enjoy nature."

Leelanau County

The county promotes an excellent quality of life throughout the area on their Web site. Some activities include excellent museums and historic sites, as well as good outdoor recreation activities.

Lenawee County

The site mentions the existence of an economic development corporation in the county, but unfortunately does not provide any detailed information.

Menominee County

The site provides no information on any of the knowledge economy indicators.

Oceana County

The site provides no information on any of the knowledge economy indicators.

Tuscola County

The site provides no information on any of the knowledge economy indicators.

Van Buren County

The site provides no information on any of the knowledge economy indicators.

Appendix C.

Recent Publications of the MSU Community and Economic Development Program