Environmental Scanning
A Continuous Process Improvement Report

Winter 2014
Henry Ford Community College
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Thank You

The CPI Environmental Scanning Team would like to thank President Stanley Jensen and Team Coordinator Becky Chadwick for their instruction and guidance throughout this endeavor.

We would also like to thank those individuals who took the time to share with us how they gather information as an environmental scan that assists them in their decision making process in their particular division or department. The responses to the interview were invaluable to our cause.

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Trisha Llewellyn
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Maureen Webster

With the guidance and expertise from these individuals we were able to complete our mission of an ongoing environmental scanning system at HFCC.

CPI Environmental Scanning Team

Winter 2014
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Background Information

Environmental scanning is a systematic process of data collection of the world, relevant to the function of an organization. It is a process of collecting, organizing, and analyzing the data for use throughout the organization (Thinking Futures, 2009). The purpose of scanning is to use the data to inform decisions about how to respond or to plan for the future. Companies that use environmental scanning are better prepared to act quickly to solve a problem or seize the opportunity for growth (wisegeek). At Henry Ford Community College we want to continue to be leaders in student learning. Ongoing scanning is a crucial for effective strategic planning to position the college for a successful future.

References
Thinking Futures. (2009). Environmental scanning: What it is, how to do it... Thinking Futures.

Project Statement

To improve/create an internal and external environmental scanning process as measured by the implementation of continuous scanning and that decisions regarding mission, vision and strategic planning are based on data gathered from the environmental scan.

I. Definition of Current Process

Current Process

Henry Ford Community College uses a process of Ad Hoc environmental scanning as part of the strategic planning process. The recent scan was completed in 2011. A subcommittee of the Strategic Planning committee was charged with completing and external and internal environmental scan and to report back to the committee. The scanning subcommittee conducted external scanning by research in the internet and at other institutions, holding forums with external stakeholders, conducting a survey of external stakeholders. The subcommittee also completed an internal scan through the use of a survey, and forums. They organized the scan using the STEEEP model (Social/Cultural/Demographic, Technological, Economic, Educational, Environmental, and Political). This process took several months and resulted in a twenty-eight page document, presented to the Strategic Planning Committee. This information was used in the planning process to establish the current HFCC strategic goals. (See flowchart)
OPERATIONAL DEFINITIONS

Conditioned Viewing: Responding to information in terms of assessing relevance to the college (Morrison, 1992).

Continuous Scanning: Ongoing evaluation of trends to determine if adjustments in Strategic Planning are warranted (Morrison, 1992).

Environmental Scanning: A kind of radar to scan the world systematically and signal the new, the unexpected, the major, and the minor (Lapin, 2004). Careful monitoring of an organization’s internal and external environments for detecting early signs of opportunities and threats that may influence its current and future plans (BusinessDictionary.com, 2014) The goal of environmental scanning is to alert decision makers to potentially significant external changes before they crystallize so that decision makers have sufficient lead time to react to the change (Morrison, 1992).

External Scanning: Trend Spotting. Helps to reduce the uncertainty in forecasting and organizational scanning. Similar to an advanced warning system for a college. It gives a college a leg up on the competition (Lapin, 2004).

Formal Searching: A method of searching that uses formal methodologies for obtaining information for specific purposes (Morrison, 1992)

Industry Environment: All enterprises associated with an association. For higher education, factors such as public confidence in higher education or student aid legislation are industry factors affecting all institutions (Morrison, 1992)

Informal Searching: Actively seeking specific information but doing it in an unstructured way (Morrison, 1992).

Internal Scanning: A review of internal resources and experiences to help in forecasting future trends (Community Tool Box).

Irregular scanning: This type of scanning is performed primarily due to a crisis that the school/company has encountered (Morrison, 1992).

Macro environment: Changes in the social, technological, economic, environmental, and political (STEEEP) sectors affect organizations directly and indirectly (Morrison, 1992).

**Scanning Styles:** Undirected viewing, conditioned viewing, informal searching, formal searching (Morrison, 1992).

**S.T.E.E.P.:** Social, Technological, Economic, Environmental, Educational, and Political interactions and other elements important to the organization (Lapin, 2004).

**Strategic Plan:** A systematic process of envisioning a desired future, and translating this vision into broadly defined goals or objectives and a sequence of steps to achieve them (BusinessDictionary.com, 2014).

**SWOT Analysis:** The term SWOT stands for Strength, Weaknesses, Opportunity, and Threat. It is used to identify the strengths and weaknesses within an organization. (Community Tool Box)

**Task Environment:** Institutions set of customers, for example students, parents, community leaders, etc. (Morrison, 1992).

**Trends:** A change of behavior and its impact on changes in future directions (Lapin, 2004).

**Undirected Viewing:** Reading a variety of publications for no specific purpose other than to be informed (Morrison, 1992).

**References**


HFCC Current Environmental Scanning Process

Charge from Strategic Planning Committee to do environmental scan. Subcommittee formed

S-Social/Cultural/Demographic
T-Technological
E-Economic
E-Educational
E-Environmental
P-Political

Division/Department Scanning

Variety of Internal Data

Variety of External Data

Use in Division Department Activities and Reporting

Internal Data Collection

Survey

Forums

External Data Collection

Internet and literature searches

Forums

Survey

Data Analysis and Summary

Report created and presented to Strategic Planning Committee for use in development of HFCC Strategic Plan

Forums
II. Analysis of Current Situation

The CPI team developed interview questions and a target group of 15 individuals across campus to gather information regarding current practices and opinions on environmental scanning. The respondents provided information either by personal interview or e-mail response to the questions. Input was received from nine (9) individuals which represents a 60% return rate. The results were then totaled and compared so that the CPI Team could gain insight into current processes, current areas of overlap, challenges faced, and areas most relied upon. Areas surveyed included: Records and Registration, Institutional Research, Counseling and Advising, Communication and Marketing, Health Sciences, Business and Computers, Math and Science, Career Services, Humanities and Social Science, and Workforce development.

The Interview was comprised of eight questions:

1. What process of gathering and analyzing data do you use within your department to help you make decisions?
2. Do you believe you are more proactive or reactive as it relates to trends within your area/department?
3. What data sources do you use to collect information?
4. Which do you make the most use of, Internal or External sources?
5. How often do you use data from HFCC’s Internal Sources?
6. What type of reports result from your data collection?
7. How do you see Environmental Scanning benefitting what you do in your area?
8. How often would you want information obtained from a college-wide scanning source?

RESULTS
The results of the above questions were as follows:

Question #1

What process of gathering and analyzing data do you use within your department to help you make decisions?

The results showed that there was a wide variety of sources utilized to help gather and analyze data within various departments. The majority of respondents relied upon internal employees to assist in gathering data (14%). Additionally, the results reflected that those interviewed looked to other colleges, stakeholders, and state and federal agencies to direct
them in their predictive studies. Likewise, students and vendors played key roles in assisting staff in collecting data as did various forms of media and personal contacts. One individual indicated, “When we find compelling information, we examine HFCC program information and opportunities to determine if (a) there is a connection and (b) if it makes sense to try and align HFCC with the trend, etc.” Consequently, data collected confirmed that currently HFCC really does cast a wide net when gathering information to help make decisions on how our school moves individual areas forward.

![How do you gather data?](image)

**Figure 1**

In addition to the above findings, another significant finding became apparent. Efforts were being duplicated. For example, four out of nine of the respondents (44%) indicated that they contacted other colleges to assist in gathering and analyzing data. Also, five out of nine (56%) indicated that they relied heavily on departmental employees to collect information. Duplication of efforts occurred in the following categories: Utilization of Listservs, contacting internal stakeholders, surveying state and federal agencies, and working with both students and vendors. The data reflected that duplication of efforts occurred in 9 out of the 12 areas identified as sources of information 75% of the time.
**Question #2**

*Do you believe you are more reactive or proactive as it relates to trends within your area/department?*

The results of this question did not clearly identify which was the more prevalent philosophy when dealing with identifying trends within departments. However, what did become clear was that many of the respondents believed they were forced into being reactive due to the lack in staffing. One-third (33.3%) indicated that they believed they could and would do more, if more resources were enhanced relative to staffing. One person stated, “We are both (reactive and proactive); however, since we are limited in staff and resources, there is only so much we can and cannot do. ...It is critically imperative for our area to have the ability to research—however, given the increasing number of competing priorities; we are unable to do this until winter term is complete.” Another respondent stated, “We try our best to be proactive; however, with the most current staffing levels, it has been more reactive.”

The chart below reflects that the majority of respondents (50%) indicated that they are both proactive and reactive, while the remaining one-third (33%) indicated they were reactive and the remaining (22%) were proactive.

![Proactive or Reactive?](image_url)
Question #3

What data sources do you use to collect information?

Similar to responses in Question #1, the answers received reflected a wide range of responses. Most notably, 87% of the respondents indicated that they relied heavily upon internal resources, such as HANK and HFCC’s Institutional Research Office, for their information. One respondent wrote, “Most of the information we use comes directly from our student information system (HANK) but some data comes from surveys and are collected through other means.” Many of respondents indicated that they relied heavily on electronic tools for research. These tools included Social Media (44%), other college’s websites (44%), Listservs (44%) and publications or journals (56%). Another respondent indicated, “I make it a point to go onto the website of community colleges in the surrounding community to compare requirements and courses in their programs compared with those offered at HFCC.”

Additionally, as in Question #1, duplication of efforts again was reflected in the responses given by those surveyed. In nine out of the ten responses (90% of the time) efforts were duplicated when utilizing data sources.

![Data Sources Most Utilized](image)

**Figure 3**
**Question #4**

*Which do you make the most use of, Internal or External sources?*

The findings for this question were inconclusive. Half of those who responded felt that they utilized external sources most often while half indicated they relied on internal sources more. What was noted from the responses to this question was the importance of both internal and external resources. One respondent stated, “It is important to have the perspective of both. External resources are sometimes more helpful as they have no personal interest in a decision being made one way or another. On the other hand, internal resources are valuable as they have knowledge of the inner-workings of the College and can provide history into previous decision making.” Another person indicated, “We try to use the most compelling objective research data at all times, whether it’s from the research area of HFCC or from an external source. We try and test data before we use as well to ensure it will help gain traction in the marketplace.”

![Figure 4](image)
Question #5

How often do you use data from HFCC’s internal sources?

The results of this question were fairly evenly distributed. Figure 5 reflects ‘Often’ and ‘Sometimes’ received the same number of responses with 33% each. ‘Not Very Often’ was third with 22% and ‘Always’ having 11% respondents. 78% of the respondents did make use of internal sources while 22% did not.

Figure 5
Question #6

What type of reports resulted from your data collection?

The responses to this question were numerous and varied as evidenced by the data in Figure 6. The types of reports produced as a result of the data gathered include federal and state reports, and reviewing of staffing levels to assisting in compiling marketing data. What was a significant finding in the responses to this question was the amount of repetition of effort being made to create reports. For example, 56% of all respondents indicated that they gathered data to complete federal and state reports. One third of the respondents used this information to help create Policy and Procedure materials. One respondent wrote, “Reports are shared with teams doing the work, college committees, the Student Affairs division, and the Executive Leadership Team.” All are important shareholders in ensuring HFCC moves forward.

![Diagram: Types of Reports Resulting from Environmental Surveys]

Figure 6
Question #7

How do you see Environmental Scanning benefitting what you do in your area?

The feedback to this question could not be accurately reflected in a chart or graph. Therefore, the responses are listed to show the respondents perspective on the value of environmental scanning.

- “It will provide a great understanding as to what truly occurs in higher education; not just that of the HFCC perspective. It will validate external data I often present.”

- “College wide environmental scanning is not a luxury for colleges any longer. It is a necessity. The environment is changing so rapidly now, if we are not aware of what is happening both internally and externally, we will miss opportunities and threats.”

- “I believe Environmental Scanning will benefit me by keeping me informed of resources.”

- “Environmental Scanning will help with greater awareness and understanding of various offices, departments, and divisions; as well as, a better understanding of the issues they face. This could impact marketing. It also allows us to perhaps offer suggestions to overcome issues and/or develop new solutions.”

- “This can help us keep abreast of changes in the field of study (education) or the community (schools).”

- “Environmental Scanning will give us ideas on trends. We are particularly interested in information on probationary students and issues related to students who require mental health referrals. [We] would like to see college-wide trends and information regarding at-risk populations.”

- “One of the primary information and data sources we would like to receive more of is follow-up and feedback from graduates.”

- “[Environmental Scanning] would be helpful. It helps us stay aligned with college and community. Likewise, it helps us know what our competitors are doing.”

- “[I think] it would enhance what we do. It will help to disseminate information college-wide and reduce the duplication of data collected. It would also give us a place to see information outside of the individual programs.”
Question #8

How often would you want information obtained from college-wide scanning shared with you?

78% of the respondents stated that information obtained from environmental scanning should be shared with the college. The frequency results varied from ‘At least once a year’ to ‘Always’.

Figure 7
III. Analyze Cause for the Current Outcomes

**CAUSE AND EFFECT DIAGRAM**

The team created the following cause-and-effect diagram. The cause-and-effect diagram demonstrated that there are in many cases people around campus are doing environmental scanning, but there is no shared repository for the data, and no single person in charge of scanning the environment for data to be used in decision making.
IV. Improvement Theory and Implementation Plan

FORCE FIELD ANALYSIS

Desired Change: Engage in Ongoing Environmental Scanning

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<tr>
<th>DRIVING FORCES</th>
<th>RESTRAINING FORCES</th>
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<tr>
<td>1. Accreditation</td>
<td>1. Money</td>
</tr>
<tr>
<td>2. Increase our competitiveness/Place HFCC in a leadership position and make us innovators amongst other colleges.</td>
<td>2. Knowledge about the process and understanding of what environmental scanning is.</td>
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<tr>
<td>3. Drive focused strategic planning</td>
<td>3. People</td>
</tr>
<tr>
<td>4. Transparency and inclusion.</td>
<td>4. Time</td>
</tr>
<tr>
<td>5. Our vision is to be student focused and environmental scanning supports the mission.</td>
<td>5. Lack of communication.</td>
</tr>
<tr>
<td>6. Make us less reactionary and more data driven.</td>
<td>6. Managing data – overwhelming amounts and no easy way to disseminate it.</td>
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<tr>
<td>7. Allow us to assess changes to see if they are effective.</td>
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ACTIONS:

1. Environmental Scanning should be a priority at the college
2. There is a need to have a single person lead the environmental scanning efforts.
**IMPROVEMENT THEORY**

**Steering Committee Feedback**

**Team:** Environmental Scanning CPI  
**Date:** Winter 2014  
**Sponsor:** Becky Chadwick

### Ideas for Improvement

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<th>Development</th>
<th>Support</th>
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| Develop a job description and employ a part-time staff member to work in Institutional Research. This environmental scanning coordinator will be dedicated to environmental scanning and supporting initiatives such as accreditation and research/creation of new programs, etc. | • IR Director  
• HR Staff  
• Search Committee |
| Establish a college standing committee/advisory board with a focus on ongoing large scale environmental scanning. This group would support the needs of others doing strategic planning, accreditation, data analysis, etc. This committee could help guide the focused environmental scans as needed. | • Members of the committee which should include: XXXXX  
• College Coordinating Council |
| Create a repository for data to be collected and stored and accessible to appropriate college stakeholders including students, faculty or the community. | • IR Staff  
• IT Staff |
| Construct an ongoing report publication that is shared internally and focuses on various data collected from environmental scans. | • IR Staff  
• IT Staff  
• Mktg. and Comm. Staff |
| Recommend another CPI team to address how to handle focused environmental scans which are needed in addition to the ongoing large scale scanning proposed by this CPI team. | • College Coordinating Council |
Gantt Chart

Summary of Gantt Chart

The objective for this team was to determine the best course of action for developing ongoing environmental scanning at Henry Ford Community College. The interview data indicated that many people were gathering the same information from different sources across campus. Realizing that information obtained was duplicated indicates loss of valuable time spent in gathering this information. Consolidating the scanning process would be more efficient and save time and money for the college. An ongoing HFCC Environmental Scanning process would provide HFCC a central location for information and assist divisions, departments and academics make more informed decisions for the future.

The CPI team recommendations includes hiring an Environmental Scanning Coordinator, creating a Standing Committee/Advisory Board for Environmental Scanning, developing a website to display information to HFCC employees and stakeholders, creating a semi-annual publication of Environmental Scanning at HFCC, and create a CPI team, when the coordinator is hired, to establish the process of the focused Environmental Scan. The following Gantt Chart illustrates the timeline to accomplish these goals.
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<th>End</th>
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<td>Apr-15</td>
</tr>
<tr>
<td>Project Schedule</td>
<td>Feb-15</td>
<td>May-15</td>
</tr>
<tr>
<td>Identify Team</td>
<td>Mar-15</td>
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<tr>
<td>Publication of Data</td>
<td>Apr-15</td>
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<td>May-15</td>
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**Implementation**

- Create Secondary CT Scan Team
- Project Schedule
- Identify Team
- Publication of Data
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
- Project Schedule
V. Monitoring and Engrafting Plan

MONITORING AND ENGRAFTING PLAN

Hiring of Environmental Scanning specialist in Institutional Research Office—We recommend that a search committee form in the early fall semester of 2014 to begin the process of selecting a suitable candidate to recommend to the President and the Board of Trustees in time for the beginning of the winter semester of 2015. Human Resources will be interviewed in January 2015 to determine if a suitable candidate has been recommended and hired by the Board.

Creation of an ongoing Environmental Scanning committee/advisory board—The committee should be created during the fall semester of 2014, with a goal of meeting by the beginning of the winter semester of 2015. The CPI team will query the relevant institutional body to which this committee will report in January 2015 to determine whether this committee/advisory board has been created.

Creation of a repository of Environmental Scanning Data, easily accessible by HFCC personnel, with both internal data and links to external sources—This database should be available by the beginning of the fall semester of 2015. The Office of Institutional Research will be queried in September 2015 to determine if this database has been created, and to find out how the information can be accessed. Members of the team will log-in to the internal site and search for data on the site. A survey will go out faculty and staff in October 2015 to gauge their level of awareness and use of this database.

Creation of a publication with Environmental Scanning data to be reported to the HFCC community—The first electronic distribution of this document should occur by the end of the fall semester of 2015. The team will query the Office of Institutional Research in the middle of the fall semester of 2015 to determine when and how this publication will be distributed to the HFCC community. Successful implementation of this recommendation will be met when the publication is distributed. Faculty and staff will be surveyed in January 2016 to find out whether they are aware of this report, and if they’re aware of it, how they’re using it.

Establishment of a Focused Scanning CPI team—This team would meet during the winter semester of 2015, with a final report issued in April 2015. The current CPI team will query the relevant institutional body responsible for CPI teams in January 2015 to determine whether this team has been created.
STEERING COMMITTEE REPORTING
The team anticipates reporting our results according to the following dates. Please note that these are tentative dates and will depend on various efforts and activities at the College.

- Update on Results: October 2014.

VI. Recommendations for Future Teams

AREAS FOR FUTURE IMPROVEMENT
The following items may positively impact enrollment, and should be considered by future CPI groups because they are beyond the scope of our project statement.

- Recommend another CPI team to address how to handle focused environmental scans which are needed in addition to the ongoing large scale scanning proposed by this CPI team.