13 Tips for a Good Scanning Practice

Scanning can be a bit of a fishing exercise involving persistence and luck. However, there are practices that can improve the chances of success:

1. **Bring the right attitude:** Futurist Elina Hiltunen suggests "keeping eyes open, having sensitivity to change, creativity, receptiveness, intuition and a curious mind; [these behaviours and qualities are] needed to find weak signals of change."[1]

2. **Scan from a variety of sources. Futurists scan broadly for weak signals through a range of different sources.** Sources include government plans, reports by large international bodies, academic journals, think tanks, newspapers, popular media, blogs, specialist magazines, etc. Some sources will detect the leading edge of a new development sooner than others (e.g. scientific and technical magazines, twitter). At the end of this module is a list of sources that Horizons has found to be useful. Keep in mind that mainstream media will often be late to discuss new developments, though competition in journalism means this landscape is changing.

3. **Foresight researchers must also look beyond developments in their own field; it is often the changes arising from outside their field that lead to surprise.** A useful broad frame of reference is the STEEG domains—social, technological, economic, environmental and governance. For instance, potential disruptions in trade can be detected by monitoring developments not only in the economy, but also in society, technology, the environment and in governance.

4. **Questions to ask when seeking weak signals:** What is new? What have I not heard anywhere else? Does this challenge a commonly held assumption about the world? What are the future implications of this item? Are policymakers and other stakeholders ready for this? Would this have interesting implications or consequences in fields beyond my own?

5. **The ideal weak signal meets the following criteria:**
    a. **PLAUSIBILITY** – there is some evidence that the change is occurring or could occur.
    b. **NOVELTY** – the change is new or relatively unknown to you and the policymakers who would be affected by the potential consequences.
    c. **SIGNIFICANCE** – the consequences are significant. They might cause a very large disruption in one domain, or have broad consequences that affect several domains.
    d. **TIMELY** – this weak signal is relevant for the time period of interest. At Horizons we are interested in potential consequences that could occur within 10-15-years.

What makes a good weak signal? Elina Hiltunen suggests a number of ways to recognize a good weak signal:

*   Makes me laugh
*   Seems unreal
*   Not much information about it
*   Strange/weird
*   Eureka moment!
*   Challenges the status quo
*   Rejected by the establishment
*   Could be highly disruptive
*   Never been done before

6. **Interaction and discussion are important to identifying weak signals.** Interviews with experts can be an efficient way to identify what is truly new and significant. Many experts will have knowledge biases that will limit their ability to think creatively about the future in the long-term or identify weak signals from outside their expertise. However, they can provide a clear understanding of the expected future that can help you identify when you've found something unexpected. Check your weak signals with others (colleagues and experts) to distinguish what is simply new to you versus that which is truly new to the system you are examining.

7. **The best weak signals often create debate and/or controversy.** Don't be discouraged if your weak signal generates negative or skeptical reactions from colleagues and even experts. In fact, that can be a sign that you've found a great weak signal! Don't be dissuaded by debates on probability.

8. **Scan regularly and report findings briefly.** A daily scanning practice (e.g. 1 hour) improves the quality of findings. You can document the weak signal in as little as a few sentences.

9. **Use technology shortcuts to whittle down the work.**
   a. **Use AI:** Set up a Google news notification to stay informed on specific subjects or join [Shaping Tomorrow](#) (a scanning site) to turn your scan hit into an AI-written summary.
   b. **Use the crowd:** Social media filing systems such as [Pearltrees](#) and [Shaping Tomorrow](#) allow participants to share scan hits, find related material and comment.

10. **A good weak signal (or several) is the basis for developing an insight.** If a weak signal stands out, it is worth taking the time to seek out supporting evidence and consider the potential consequences more deeply. Informal conversations, interviews and structured brainstorming help provide a sufficiently broad view of the topic (e.g. consider STEEG implications or departmental mandates) as well as any potential effects further into the future. Horizons uses [cascade diagrams](#) to facilitate this discussion.

11. **Pay attention to patterns as you scan.** Take note of any developing patterns you see, or any gaps or "logical holes" in a pattern that you think might be emerging. Then do some directed scanning to see if there are any weak signals to complete the pattern. This type of "sensemaking" is an important part of scanning and should be done periodically throughout your scanning practice. It can lead to insights about change in the larger system you are examining.

12. **Keep in mind that the aim of scanning and foresight is to prepare for the future, not to predict it.** Scanners will develop their ability to discern signals of real change from what might later prove to be only a blip through many of the techniques listed in this manual.

13. **Be aware of your existing and revised assumptions along the way.** In communicating your findings to others, you may need to highlight old and new assumptions.

Challenges Frequently Encountered with Scanning:

- **Scanners may be influenced by pre-existing perspectives or personal bias.** It is important to frequently check your baseline assumptions with others and remain open to sources of information that may not confirm your beliefs, rather than just those that do.
- **It is impossible to scan everything**. We rely on a scanning community to help lighten the load, draw our attention to the most note-worthy information and validate findings.
- **Capturing the information concisely can be difficult.** To support an active scanning community, weak signal reporting should be easily digestible, concise, and strategic. A picture or graphic can help communicate a key message.
- **Understanding what may lead to change takes practice.** Solo scanning activities are best paired with regular sharing sessions to help scanners understand the system and validate findings.

- **Scanners may hold onto weak signals too long in order to gather more evidence before sharing.** This can undermine the process as the scanner's understanding changes and others miss the opportunity to learn and form their own connections.
- **Scanners may not know when they have sufficient evidence to pursue an insight.** While there are no hard and fast rules, a good guideline is that three related weak signals from different sources are a good indicator of a change. Also consider (especially if you have fewer than three) whether there are other changes occurring in the system that would strengthen the weak signal over time.
- **Scanners often get distracted considering the probability of a change, when the focus should really be on its plausibility and impact (potential disruption).** In foresight, impact is usually more important than likelihood. Low probability but highly disruptive events are very appropriate content for a foresight study because they are unlikely to be raised else-where.
- **It can be tempting for scanners to focus right away on policy issues and/or advocacy for specific responses, rather than disruptive changes (weak signals).**[2] However, in foresight we always want to start our exploration with the change that is occurring. Only after going through a rigorous process of interacting many weak signals and developing scenarios do we elaborate the policy implications that could emerge in the future.

Notes

1. Hiltunen, Elina. "Good Sources of Weak Signals: A Global Study of Where Futurists Look For Weak Signals", Journal of Futures Studies, May 2008, 12 (4): 21-44.
2. For example, consider the difference between "Child poverty is an issue in Canada" (a policy challenge), "Canada needs to address poverty" (an advocacy statement) and "Suburban poverty has arrived in Toronto" (a weak signal of a change).