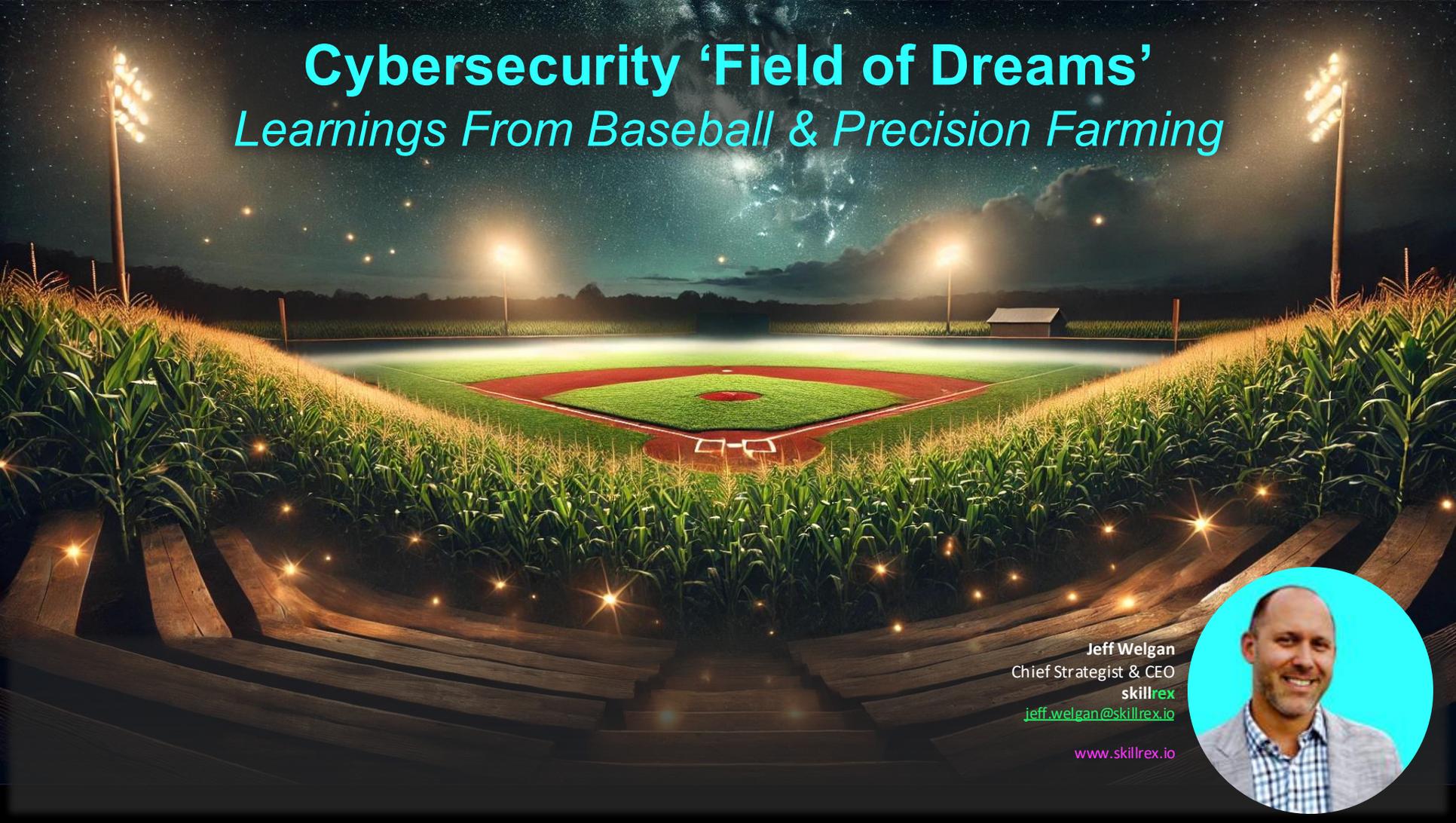


Cybersecurity 'Field of Dreams'

Learnings From Baseball & Precision Farming



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Today's Lineup

- **'The Warmup':**
Setting the Scene
 - **Beane Counting:**
The Moneyball Approach
 - **Lessons from the 'Outfield':**
Precision Farming for Cyber Talent
 - **Cybersecurity 'Field of Dreams':**
How to Knock Your Workforce Strategy Out of the Park
 - **The Highlight Reel:**
Key Plays to Remember & Repeat
 - **'Challenge the Ump':**
Q&A
-



'The Warmup'

Setting the Scene

The Warmup | Acknowledging the Environment

Hiring is Key, Retention Matters: While hiring is a focus, retaining current cybersecurity talent is crucial.

Skills Drive Entry, Development Drives Retention: Skills-based hiring gets people in, but career development keeps them.

Growth Obstacles: Unclear skill expectations and advancement paths hinder employee growth.

Retention Risk: Lack of growth pathways leads to retention problems & talent loss.

Skills-Based Dev. = Empowerment + Sustainability: Focusing on skills for growth benefits individuals and the organization's long-term health.

Key Challenges:

- **514,359 job openings** requesting cyber skills (CyberSeek, May 2025)
- **90%** of orgs report skills gaps in their teams (ISC2, 2024)
- **58%** of professionals lack clear career paths (ISC2, 2024)
- **Only 29%** of orgs track skills or have upskilling programs (Fortinet, 2023)
- **64%** say lack of structured development drives turnover (ISACA, 2023)

The Warmup | Strategizing for the Win

The challenges across the workforce ecosystem not only has an impact for cyber talent, but for the broader business as well

Talent Acquisition



Talent Recruitment

It takes **6 months** on average to find & hire cyber talent.



Job Descriptions

72% of hiring managers say their JDs are clear, but only **36%** of applicants agree.



Titles & Classifications

Mis-hires and poor role & skill expectations can **cost 5x** the candidates salary or more.



Role Competency Analysis

Job performance jumps by **25%** and **75%** of staff report **higher job satisfaction** when roles are clear.



Skill Gap Analysis

92% of cyber professionals say their company suffers from skills gaps in one or more areas.



Talent Development

33% of leaders say lack of training for IT staff to move into cyber contributes to skills gaps.



Career Pathing

Employees have **75% likelihood** of staying with company when making an internal move.



Retention/Attrition

3 out of 5 factors people consider when pursuing new jobs reflect desire to learn new skills.

To win the game, we need to manage the entire playing field, not just isolated rows and silos.



Beane Counting

The Moneyball Approach

Poll

*Are you familiar with
Sabermetrics?*



Beane Counting | The Moneyball Approach

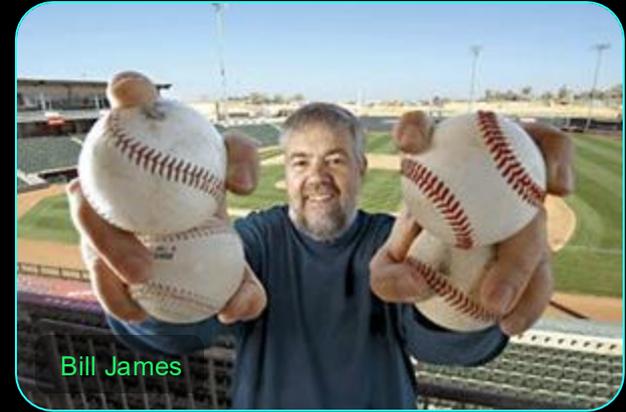
sa·ber·met·rics

/,sābər'metriks/ noun

the application of statistical analysis to baseball records, especially in order to evaluate and compare the performance of individual players.

Key Aspects:

- **Objective**, data-driven baseball analysis.
- Uses **advanced metrics** (e.g., Runs Created, OPS) to measure player value.
- Aids in **evaluating player performance** for acquisitions and trades.
- Informs **strategic decisions** (e.g., base running, pitching matchups).
- Helps **predict outcomes** and **plan for future** seasons.



Credit where credit's due

RICK HOWARD

Former colleague at N2K Networks.

One of the first—if not *the* first—person to make the cybersecurity Moneyball approach analogy.

Applied the concept to cyber recruiting and team training; and to his “First Principals” Cyber Risk approach.

Former host of CISO Perspectives Podcast.

Author of *Cybersecurity First Principles: A Reboot of Strategy and Tactics* (2023).

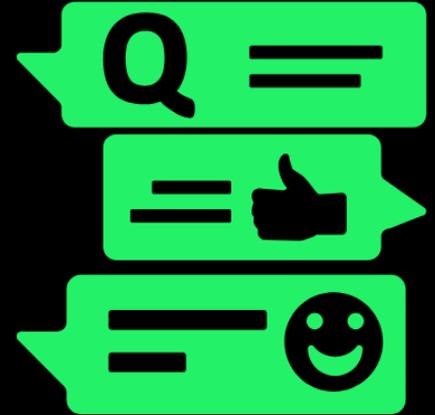


Rick Howard



Poll

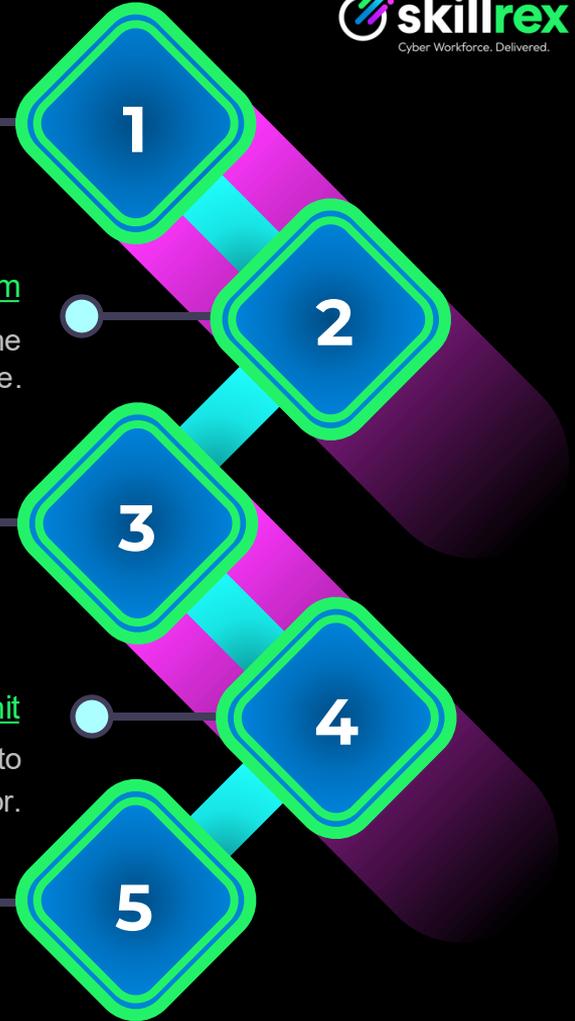
What types of metrics would be applicable to cyber professionals (individually or as a team)?



Beane Counting | Beyond the Player

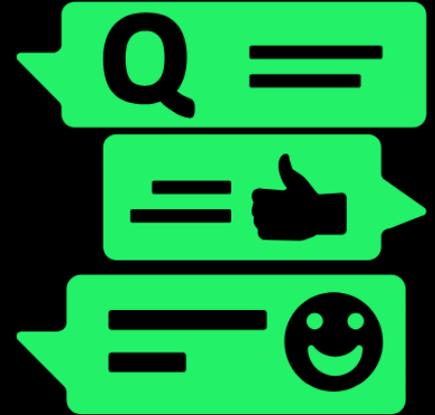


- Individuals
Ensure each player has the right skills.
- Team
Build a lineup where complementary strengths raise the whole batting average.
- Department
Aggregate stats to spot bottlenecks and redeploy talent where innings are won.
- Business Unit
Tie workforce analytics to mission-critical KPIs to keep the scoreboard in your favor.
- Company & Industry
Benchmark against the entire league to shape strategy and set the new standard.



Poll

*As we think about Cyber Depts,
Business Units, &
Company/Industry, what other
metrics become useful?*



Lessons from the 'Outfield'

Precision Farming for Cyber Talent

Lessons from the Outfield | Precision Farming

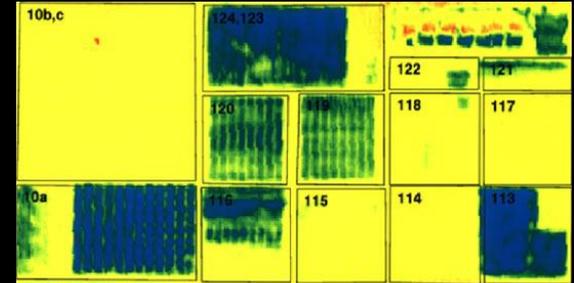
pre·ci·sion farm·ing / ag·ri·cul·ture

/prē'siZH(ə)n/ · /färmiNG/ · /agrə,kəlCHər/

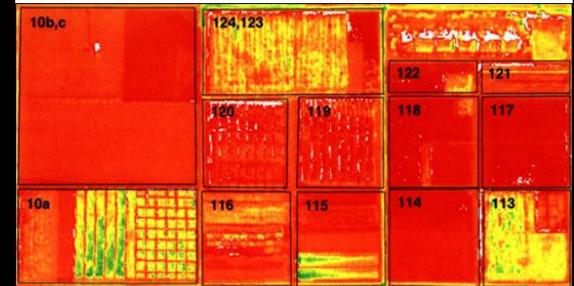
a data-driven approach that uses technology—like sensors, GPS, and analytics—to monitor and manage variability in crops, soil, and climate. It aims to optimize inputs, boost yields, and reduce waste for more efficient and sustainable farming.

Key Aspects:

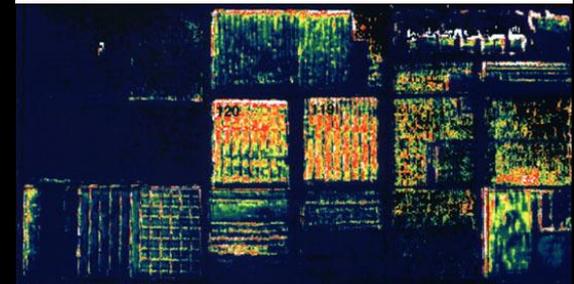
- **Objective, data-driven approach** to farm management.
- Uses **advanced sensors & analytics** (e.g., soil moisture, NDVI) to guide decisions.
- Aids in optimizing input use (e.g., water, fertilizer) to **improve yield and efficiency**.
- **Informs strategic actions** and long-term planning based on predictive insights.



Vegetation Density



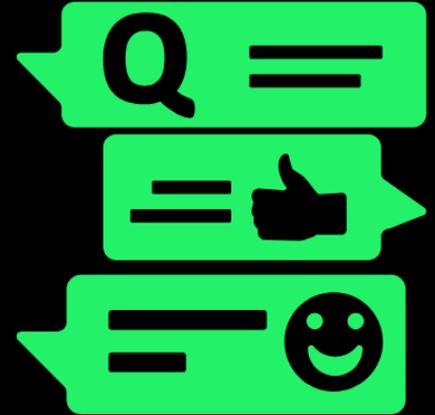
Water Deficit



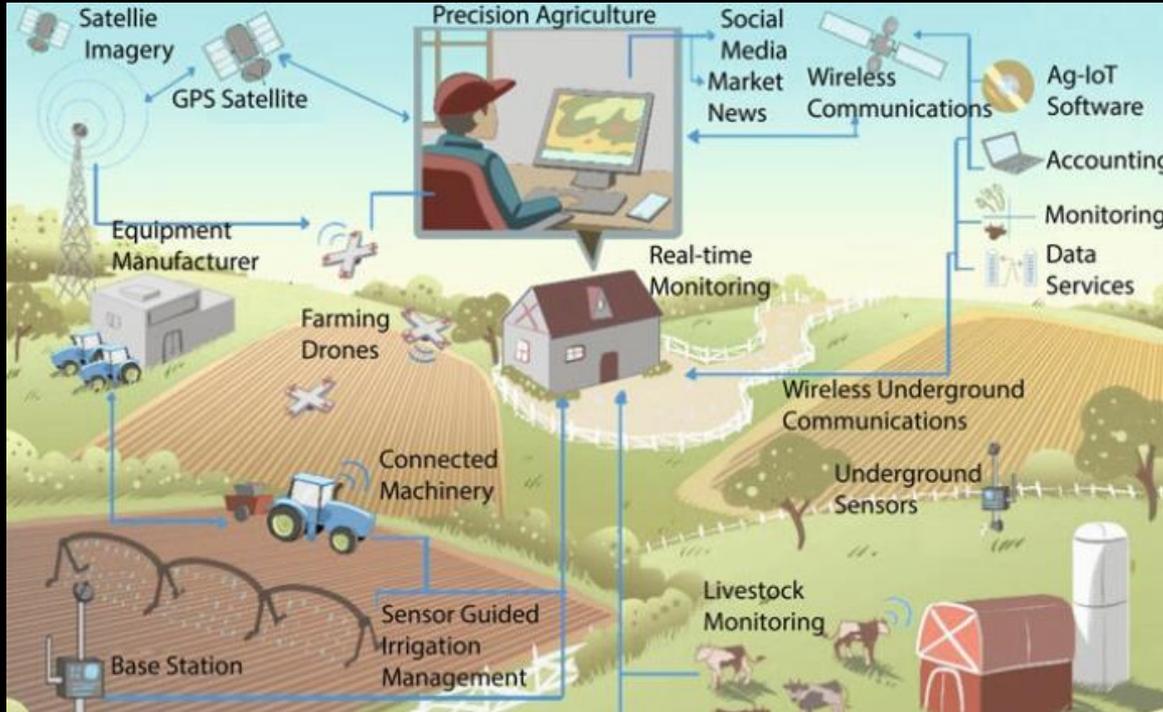
Crop Stress

Poll

What types of metrics do you think would be useful for precision farming?



Lessons from the Outfield | Agricultural Sensor Grid



Key Concepts:

- **Sensors:** Tools used to monitor environmental and crop conditions in real time to inform interventions.
- **Treatments:** Interventions to optimize growth conditions and yield.
- **Yields:** Measurable outcomes of agricultural interventions.
- **Sustainability:** Long-term practices ensuring resource and ecosystem health.

Lessons from the Outfield | Translating Ag Concepts for Cyber

Concept	Sensors	Treatments	Yields	Sustainability
<p>Precision Farming</p> 	<p>Definition: Tools used to monitor environmental and crop conditions in real time to inform interventions.</p> <p>Examples: Soil Sensors (Moisture, pH, NPK), Crop Sensors (Optical, Biosensors), Environmental Sensors (Temp, Humidity), Location Sensors (GPS, Ag-IoT)</p>	<p>Definition: Interventions to optimize growth conditions and yield.</p> <p>Examples: Targeted Fertilization, Precision Irrigation, Pesticide Application, Soil Aeration, Crop Rotation</p>	<p>Definition: Measurable outcomes of agricultural interventions.</p> <p>Examples: Crop Yield per Acre, Input Efficiency, Harvest Quality, Reduced Waste, Profitability</p>	<p>Definition: Long-term practices ensuring resource and ecosystem health.</p> <p>Examples: Soil Regeneration, Water Conservation, Renewable Energy, Reduced Chemical Use, Biodiversity Practices</p>
<p>Cyber Workforce</p> 	<p>Definition: Tools and methods for obtaining workforce data and insights.</p> <p>Examples: ATS, Labor Market Tools, HRIS, Surveys, LMS, LXP, CWI Platforms, Business KPIs, Compensation Benchmarks</p>	<p>Definition: Workforce actions aligned to organizational goals.</p> <p>Examples: Job Architecture Standardization, Skills Assessments, Learning Paths, Career Progression Design, Mentorship Programs, etc.</p>	<p>Definition: Measurable outcomes of talent strategies.</p> <p>Examples: Internal Mobility Rates, Skill Proficiency Increases, Role Readiness, Retention Rates, Productivity Gains, ROI, etc.</p>	<p>Definition: Long-term maintenance of talent capability and adaptability.</p> <p>Examples: Annual Role Reviews, Integrated HR Systems, Manager Feedback Loops, Governance Structures, Strategic Refresh Cycles</p>

Cybersecurity 'Field of Dreams'

*How to Knock Your Workforce Strategy
Out of the Park*

‘Barrel it up’

“ If you build it, [they] will come. ”
-Field of Dreams (1989)



Knocking Your Cyber Workforce Strategy Out of the Park

But to knock it outta the park, you need to build it right

The Field:

This is your cyber workforce strategy — the foundation your team plays on.

- **Build it with intention.** Structure it to grow and adapt.
- **Maintain it consistently** to enable performance.
- **Reevaluate it regularly** to ensure it supports business goals.



‘Field of Dreams’ | How to Barrel it Up

Knocking Your Cyber Workforce Strategy Out of the Park

But to knock it outta the park, you need to build it right

The Players:

These are the people and functions responsible for cyber workforce success.

- **HR, L&D, cyber leaders,** and **business partners** all have a position to play.
- Pick your **Team Captain**, as well as an **Integrator**.
- No single role can win the game — **alignment and collaboration are essential.**
- **Understand the playbook** and **work together** to cover the field.



'Field of Dreams' | How to Barrel it Up

Knocking Your Cyber Workforce Strategy Out of the Park

But to knock it outta the park, you need to build it right

The Bases:

These represent the core phases of the cyber talent lifecycle.

- 1st Base: **Talent Acquisition** – You've brought the right people to the plate.
- 2nd Base: **Talent Management** – You're building skills, roles, and experience.
- 3rd Base: **Talent Retention** – Your players stay because they value the team and culture.
- Home Plate: **Talent Futures + Readiness** – You're planning ahead and positioning for what's next.



‘Field of Dreams’ | How to Barrel it Up

You Can’t Win, Unless You Score

Building the field is foundational. Getting players on base is progress. But winning? That’s about execution. Inning after inning.

	BALL	STRIKE									OUT
		1	2	3	4	5	6	7	8	9	TOTAL
GUEST	1	1	1	1	1	1	1	1	1	1	9
HOME	1	1	1	1	1	1	1	1	1	1	9

The Cyber Talent Matrix™:

- Provides a **maturity model** to assess initiatives and improve execution across each program area.
- Defines the **9 key innings** of a winning cyber workforce strategy.
- Helps organizations **identify** gaps, **align** efforts, and **prioritize** investment.
- Turns isolated actions into an **integrated, game-ready strategy**.
- Enables leaders to **track progress**, **measure impact**, and **plan for the future**.
- **HR, L&D, cyber leaders**, and **business partners** all have a position to play.

'Field of Dreams' | The Cyber Talent Matrix™

The Innings

1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Talent Acquisition & Job Descriptions	Job Architecture & Role Analysis	Workforce Skill Inventories & Assessments	Skill Gap Analysis	Talent Development & Learning Alignment	Career Mobility & Progression	Workforce Culture & Engagement	Workforce Analytics & Market Intelligence	Talent Lifecycle Integration & Systems Alignment

'Field of Dreams' | The Cyber Talent Matrix™

Innings 1-3

Inning	Initiative Qs	Sensors	Treatments	Yields
1st – Talent Acquisition & Job Descriptions	<ul style="list-style-type: none"> • Are job descriptions skills-based? • Are hiring practices standardized? • Is recruiter effectiveness tracked? • Do job postings reflect role needs? 	<ul style="list-style-type: none"> • Time-to-fill (ATS) • JD audit/accuracy score • Interview-to-offer ratio • Offer acceptance rate • Candidate satisfaction score 	<ul style="list-style-type: none"> • Revise JDs • Train recruiters • Apply hiring scorecards • Standardize job postings 	<ul style="list-style-type: none"> • Better hiring decisions • Faster fill times • Higher quality of hire • Improved recruiter performance
2nd – Job Architecture & Role Analysis	<ul style="list-style-type: none"> • Are job titles aligned across units? • Are roles mapped to competencies? • Is compensation benchmarked? • Are job families clearly defined? • Are roles reviewed annually? 	<ul style="list-style-type: none"> • % of roles analyzed for competencies (CWI, HRIS) • Market-aligned pay ratio • # of outdated roles • Compensation equity audit 	<ul style="list-style-type: none"> • Role analyses • Standardize titles/functionality • Link roles to frameworks • Benchmark compensation 	<ul style="list-style-type: none"> • Consistent job structure • Market-aligned comp plans • Reduced role confusion • Better workforce planning inputs
3rd – Workforce Skill Inventories & Assessments	<ul style="list-style-type: none"> • Is a centralized skill inventory maintained? • Are assessments role-aligned? • Are certifications tracked? • Is employee proficiency evaluated? • Are skills mapped to frameworks? 	<ul style="list-style-type: none"> • % with skill profiles (CWI, HRIS) • Certification tracking rate • # of assessed employees • % of roles mapped to skills 	<ul style="list-style-type: none"> • Conduct assessments • Launch skill DB/Dashboard • Audit certification records • Use skills inventory tools • Incorporate manager reviews 	<ul style="list-style-type: none"> • Clear visibility into skills • Informed L&D planning • Skills-based development • Higher training relevance • Improved performance metrics

'Field of Dreams' | The Cyber Talent Matrix™

Innings 4-6

Inning	Initiative Qs	Sensors	Treatments	Yields
4th – Skill Gap Analysis	<ul style="list-style-type: none">• Are gaps identified and prioritized?• Are gap trends monitored?• Are gaps tied to business risk?• Are gaps tied to roles and departments?• Are gaps updated post-treatments?	<ul style="list-style-type: none">• Gap closure rate• Risk index by role/team• Average time to close gaps• # of high-risk gaps	<ul style="list-style-type: none">• Perform quarterly gap reviews• Visualize gaps in dashboards• Flag critical gaps• Prioritize high-risk skills• Share gap data with L&D	<ul style="list-style-type: none">• Proactive risk reduction• Targeted learning investment• Shorter gap resolution time• Better alignment to strategy• Improved performance reviews
5th – Talent Development & Learning Alignment	<ul style="list-style-type: none">• Are L&D programs mapped to roles/skills?• Are outcomes measured?• Are learning paths curated?• Is learning participation incentivized?	<ul style="list-style-type: none">• Course completion %• Post-training performance change• Certification success rate• Learning satisfaction score	<ul style="list-style-type: none">• Launch role-based learning• Apply blended formats• Use pre- and post-assessments• Partner with content providers	<ul style="list-style-type: none">• Increased skill proficiency• Faster onboarding• Better training ROI• Improved knowledge retention• Stronger role-readiness
6th – Career Mobility & Progression	<ul style="list-style-type: none">• Are career paths documented?• Are internal moves encouraged?• Are promotions tracked equitably?• Is lateral movement supported?• Are employees aware of career options?	<ul style="list-style-type: none">• Internal promotion rate• Career plan usage• Cross-functional mobility metrics• Tenure before mobility	<ul style="list-style-type: none">• Publish paths internally• Build internal job board• Offer mentorship programs• Incentivize cross-role transitions	<ul style="list-style-type: none">• Higher internal mobility• Stronger succession pipeline• Improved leadership development• Lower turnover in key roles

'Field of Dreams' | The Cyber Talent Matrix™

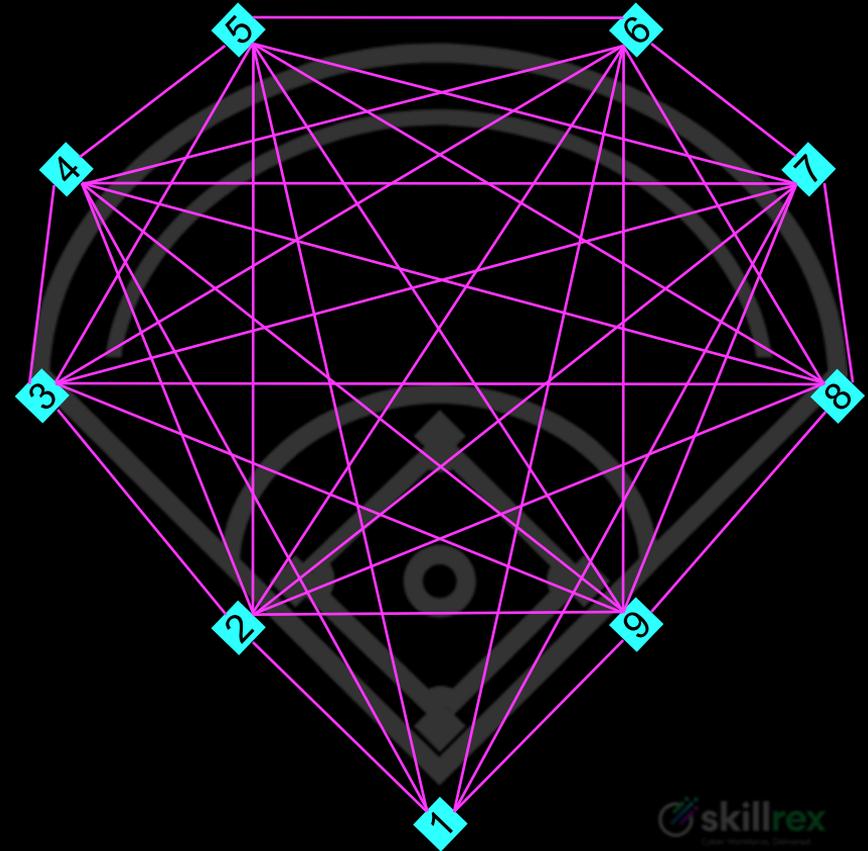
Innings 7-9

Inning	Initiative Qs	Sensors	Treatments	Yields
7th – Workforce Culture & Engagement	<ul style="list-style-type: none"> • Is employee engagement measured? • Is inclusion part of team culture? • Do staff feel they belong? • Is leadership accountable for culture? 	<ul style="list-style-type: none"> • Engagement score (survey) • Inclusion sentiment rating • Retention by cohort • Belonging index 	<ul style="list-style-type: none"> • Launch engagement surveys • Recognize inclusive behaviors • Facilitate manager coaching • Run culture retrospectives 	<ul style="list-style-type: none"> • Higher morale • Stronger team cohesion • Positive workplace sentiment • Greater psychological safety
8th – Workforce Analytics & Market Intelligence	<ul style="list-style-type: none"> • Is market data used in planning? • Are future skill needs forecasted? • Are benchmarks available? • Is attrition risk modeled? • Is labor market data integrated? 	<ul style="list-style-type: none"> • Market salary benchmarks • Talent supply-demand ratio • Attrition forecast • Time-to-hire vs. market • External hiring competition 	<ul style="list-style-type: none"> • Use labor intelligence tools • Share quarterly briefs • Benchmark compensation • Forecast critical roles • Combine internal + external data 	<ul style="list-style-type: none"> • Competitive compensation • Smarter hiring decisions • Future-ready skill strategy • Proactive talent risk planning • Faster business adaptation
9th – Talent Lifecycle Integration & Systems Alignment	<ul style="list-style-type: none"> • Are HR systems integrated? • Are workflows consistent? • Is data syncing automated? • Are talent systems user-friendly? • Is cross-platform reporting enabled? 	<ul style="list-style-type: none"> • # of integrated systems • Data error rate • System satisfaction rating • % of records with skills data • System utilization rate 	<ul style="list-style-type: none"> • Sync HRIS & LMS • Remove manual workflows • Automate skill tagging • Standardize system workflows • Conduct integration audits 	<ul style="list-style-type: none"> • Unified talent data • Fewer errors • Increased system value • Streamlined HR operations • More confident reporting

'Field of Dreams' | The Cyber Talent Matrix™

The 9 Innings:

- Innings **strategic focus areas**, not a linear sequence. Work can begin **anywhere**.
- Cyber workforce strategy requires cross-functional alignment, **not siloed initiatives**.
- Sensors, treatments, and yields often impact multiple innings. **Actions in one area** (like analytics in Inning 8) can **drive measurable impact in others** (e.g., hiring in Inning 1 or job design in Inning 2)
- Creates **feedback loops** that strengthen the whole system.
- Data analytics and **workforce intelligence** sit in the center & **fuses signals** across innings into a common operating picture **to visualize and treat workforce risk** efficiently.



'Field of Dreams' | The Cyber Talent Matrix™

Despite the baseball theme, this is not a pitch!

- skillrex is in the process of completing **The Cyber Talent Matrix™**
- Targeting **Fall '25** for completion
- Once complete, we will release/offer it as a **free resource** to the cyber workforce community. **No catches!**
- If interested, **scan the QR code**



Cyber Talent Matrix Interest Form
Link: <https://8ozwi9lsk7k.typeform.com/skillre-xCTM>



The Highlight Reel

Key Plays to Remember & Repeat

Plays of the Day

The Highlight Reel

Think ecosystem, not silos. Cyber talent acquisition, management & retention are inter-locking parts of one field; gaps in any inning hurt the whole game.

Moneyball your workforce. Apply sabermetrics-style analytics from the individual all the way up to department, BU and enterprise to stack the lineup with the right skills at the right time.

Farm with precision. Use sensors (data sources), targeted treatments (programs) and yield metrics to continuously optimize skill growth and resource spend.

Run the nine innings of the Cyber Talent Matrix. Assess maturity in each focus area, then iterate. Actions in one inning (e.g., analytics) should reinforce others (e.g., hiring, role clarity).

Play the long game. Measure impact (risk reduction, retention, productivity) and refresh strategy regularly. Winning seasons come from sustained, data-driven execution.



'Challenge the Ump'

Q&A

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Let's Connect.