

Dragonfly Concept Design



Dragonfly - named for insect whose eye contains thousands of “eyes”, giving it a wide range of perspectives from which its brain constructs its reality and actions.

Author: J. Miguez
Q4 2019

Project Genesis

Sparked by the release of David Epstein's book *Range*, the question that launched the quest was crafted as follows:

*"Is there a way to predict employee high performance, and therefore company high performance, by examining the degree to which their path to performance (P2P) is in alignment with the principles outlined in *Range*?"*

Contributing questions include:

- What performance does business need from its employees?
- What is the traditional/current/accepted P2P for employees?
- What are the principles that define the Range P2P?
- How can we objectively measure the alignment of a company's current P2P?
- What are the barriers to organizations adopting a "Range-driven" approach to talent management?
- Is there a correlation between the P2P level of alignment and the performance of the company?

What performance does business need from its employees?

Today's business environment has been termed and widely accepted as VUCA (volatile, uncertain, complex, ambiguous.) This environment has placed a premium on organizations that are:

- **Agile** - able to quickly deploy and redeploy human capital to emerging needs and opportunities.
- **Experimental** - have a culture and resources able to conceive, test and iterate of new hypotheses.
- **Innovative** - ability to generate and execute new ideas in order to capture business opportunities.
- **Data powered** - human capital is augmented by data for management (ie. performance tracking, succession planning) and the delivery of the above capabilities.

Today's business environment is as being what Robin Hogarth calls a "wicked domain." Wicked domains are defined as having problems that are not readily computable and have feedback loops that are long and may not provide accurate feedback. The answers to wicked problems are unknown at the outset and need to be created. Examples of wicked domains include improvisational jazz, and cancer research.

Net: *Today's business environment requires a P2P that makes human capital "wicked smart" (Boston joke)*

What is the traditional/current/accepted P2P for employees?

Today's development paths generally follow two paths depending on the employee. Designated high potential employees are often provided a wide ranging development path early on in their careers. Business units rotations, projects and even mentorship expose this employee to all aspects of the company as a means of preparing them for future leadership positions. This cohort is typically extremely small relative to the employee base.

The second path serves the typical employee. On this path employees, who have been hired for a specific domain experience are funneled into deeper knowledge of that domain. Sales people receive sales and product training, an operations employee may receive task management and process training while operators might attend equipment and safety courses. These trainings, limited to a single domain are associated with the assumption of a kind domain and problems.

Kind problems are domain-constrained with tight and accurate feedback loops. Unlike the wicked variety, answers to kind problems are known and simply need to be found. Kind doesn't mean easy, a sport can be kind because you quickly know if you executed the correct stroke. Examples of kind domains include classical music, hernia surgery and chess. Kind domains are often the best targets for automation.

Range principles, where existing, are often found in the initial hiring process. In 1991 David Guest introduced the concept of t-shaped skills. The vertical bar of the T refers to expert knowledge and experience in a particular area, while the top of the T refers to an ability to collaborate with experts in other disciplines and a willingness to use the knowledge gained from this collaboration. This concept was further popularised by Tim Brown, CEO of design firm IDEO. While the concept was seen to have value and gained momentum with HR the concept of developing t-shaped employees never took hold. The priority for most recruiting and promotions involves an emphasis on the vertical domain of the individual.

T-shaped employees provide companies with increased talent agility and mobility. Having an agile workforce can spell the difference between being an industry leader or falling behind. PwC reports that when businesses have development programs that increase agility, 86 percent respond rapidly to changes in the business environment. Without these kinds of programs, only about half do. A Forbes article from earlier this year stated that talent mobility enables organizations to rapidly adapt to changing environments, with the ability to deploy and move key skills across projects, across the business and across borders when needed. Mobility provides avenues for staff to progress and evolve within an organization, and can lead to 30% better processes and 23% more productivity.

Epstein captures it this way. "Facing uncertain environments and wicked problems, breadth of experience is invaluable. Facing kind problems, narrow specialization can be remarkably efficient. The problem is that we often expect the hyperspecialist, because of their expertise in

a narrow area, to magically be able to extend their skills to wicked problems. The results can be disastrous.”

Net: *Today's P2P does not fit business to a “T” (I am on a roll)*

What are the principles that define the Range P2P?

First it is important to acknowledge, as Epstein does multiple times in the book, that while Range-enabled generalists are critical to business success the value of specialists is not diminished. A multitude of examples are provided showing how generalists draw on the deep expertise of specialists in order to achieve the results delivered. Distilling the book's insights and translating them to corporate talent management creates three levels of guidance. The first contains the characteristics of a Rangey(?) path-to-performance (rP2P). The second, is guidance on keys to rangey teams. The final level is focused on the organizations itself.

rP2P

The goal of the rP2P is to build polymaths. Polymaths differ from T-shaped employees in that the emphasis is on the horizontal dimension. A polymath's breadth is greater than T-shaped human capital while their vertical depth may be less than traditional T-shapes. The polymath's superpower comes from a range of transferable thinking skills (conceptual, computational, lateral, and ambidextrous for example) that allow for innovative problem solving across multiple domains. It also includes more tangible skills such as communication, collaboration and anticipatory competencies that drive higher value solutions. The final element of a range-y employee is attitudinal with value-adding polymaths displaying active open mindedness and scientific curiosity.

The first two principles associated with a Range-aligned P2P focus on the structure and focus of the developmental path. The rP2P contains:

- **A *sampling period*** - This is characterized by what experts often call “unstructured play.” This feature of the developmental path allows for individuals to experiment in domains other than their own. In the corporate environment this may be a rotational program or project-based. The unstructured element forces participants to improvise first before learning existing rules. This is analogous to the way in which humans learn language. We learn the sounds first before we learn the rules of grammar. This element should be designed to provide the participant with experiences that allow them to better understand alternative domains giving them knowledge of resources that may be valuable when facing later challenges as well as exposure and personal knowledge of their interest and proclivity for other areas.
- ***Mechanisms for improving “match quality”*** - The rP2P should include opportunities for individuals and organizations to re-deploy individuals to domains better suited to their skills, interests, and proclivities. Short-term assignments, internal internships and project participation can be used to serve this purpose. Up or out development paths serve neither the individual or organization.

The final two principles associated with a Range-aligned P2P focus on the content and presentation of that content on the developmental path. The rP2P contains:

- ***Flexible content*** - Flexible content is content that is both sticky (retained over the long-term) and broadly applicable. Retention of rP2P content is driven by two key factors. The first is the use of testing. rP2P test questions are connection making in nature

versus procedural. Testing should focus on cross domain application, pattern recognition, categorization and decision making. Procedural questions such as “what are the four steps in handling a customer objection?” are minimized in favor of questions such as, “what other uses for the customer objection handling process are there?” Stickiness is also enhanced by the use of spacing. Delaying the testing process forces the knowledge to be placed into long-term memory. End of class assessments are less indicative of future performance than follow up assessments given at a later date.

- **Difficult learning experiences** - Learning should include what Nate Kornell calls “desirable difficulties.” These productive difficulties include creating a generational effect, where participants produce their own answers exclusive of guidance. Learners benefit greatly from this self-reliant process even if the answer generated is incorrect. Instructors should also be creating environments in which learners struggle. This may include problems beyond learners’ capabilities, mixing multiple areas of new knowledge together to prohibit “block” learning (aka memorization) and assessments in which few learners achieve a passing score. While this often results in lower instructor/session ratings from participants it has been shown to have significant long-term benefits in retention and performance.

Rangey Groups

While the book focuses primarily on the individual, Epstein highlights two characteristics of high performing groups.

- **Diverse** - High performing groups included a wide variety of participants. This includes range in:
 - Geography/World view
 - Demographic
 - Experience in domain from novice to expert
 - Domain, but still polymaths not a collection of specialists
- **Porous boundaries** - Groups that performed well were also not walled off from the rest of the organization. Groups frequently showed improved value when they were able to reach out to specialists across the organization and even outside the organization.

Rangey Organizations

Example such as 3M are cited in the book as examples of an organization that supports its range-y individuals and teams. From creating an internal award for innovation to the ways it allows individuals to follow their passions (increased match quality) 3M regularly produces significant innovations across a wide range of domains. Epstein touches on a few organizational keys.

- **Culture** - 3M’s internal award and its talent management approach are operational examples of a culture that sees the value of supporting its rangey employees. By celebrating, facilitating and empowering range, 3M has created a culture that makes it values more than just an annual statement cliché.
- **Long-term focus** - Because range often does not show immediate results the organizations that embrace it must have a longer view. Think of the innovations that

emerged from Amazon and the newly approved LTSE (long-term stock exchange) that clearly states that “Companies that operate with a long-term mindset tend to outperform their peers over time. But going public can pressure even the most visionary founder into a short-term mindset.”

- **Risk tolerant** - Creating new solutions that work often means finding many more that don't. Acceptance, even encouragement of failure, and the adoption of an experimental scientific mindset are cornerstones of organizations that deliver higher performance over the long-term.

Net: *The principles of Range have implications for a number of areas in talent management including; candidate selection, onboarding, development, succession planning and leadership. In order to drive success in today's wicked environment organizations, and talent management functions that support them, must become an integrated farm (egg-to-soup) for free-range talent. (the roll continues)*

How can we objectively measure the alignment of a company's current P2P?

Standard measures for HR practices are in limited supply and often not publicly available. The table below captures some initial thoughts regarding potential metrics/proxies for the various elements of range. Primary research in collaboration with one or more of the partner listed at the end of this section and/or analyst-like interviews focused on HR leaders may also prove useful in the development and testing of a quantitative range "score".

	Dimension	Metric/Area of Inquiry
rP2P	Sampling	<ul style="list-style-type: none"> Onboarding process Use of project assignments Cross domain rotations
	Match Quality	<ul style="list-style-type: none"> Internal lateral transfers versus upward promotions Use of project assignments Cross domain rotations Former employees now working in another domain Employee satisfaction Employee retention Employee engagement Employee development plans
	Flexible Content	<ul style="list-style-type: none"> Learning experience (LXP) design LXP satisfaction scores Cross functional applicability of LXP (multi-audience) Layoffs
	Difficult Learning XP	<ul style="list-style-type: none"> Learning experience (LXP) design LXP assessment timing LXP pre/post assessments Instructor ratings Post-LXP performance reviews
rGroup	Diversity	<ul style="list-style-type: none"> Employee census Recruitment procedures Job requirements (narrow/broad)
	Porous Boundaries	<ul style="list-style-type: none"> Resource sharing policies Use of outside experts/consultants
rOrg	Culture	<ul style="list-style-type: none"> Employee survey Leadership characteristics
	Long-term Focus	<ul style="list-style-type: none"> Strategic plan R&D spend

Net: Initially looking for proof of range will be similar to searching for black holes. You have to look for the effects not directly at it. (the gravity of this statement can't be eclipsed...science joke)

What are the barriers to organizations adopting a “Range-driven” approach to talent management?

While the value of range practices are widely documented, adoption of the proven practices face a number of challenges. Some of these challenges are documented below. This list is not meant to be all-inclusive as it excludes any number of organizational structure, compensation and process barriers.

- **Slow thinking requires a longer payback period** - As is the case in spacing of testing where immediate results may be poor while results produced further out exceed the current P2P so it is with much of the range principles. Organizations and other stakeholders (HR, Management) may find it difficult to “stay the course” without near-term ROI.
- **Spacing assessments is less rewarding to learners** - Individuals often do not receive the immediate gratification of progress and success when participating in a rP2P. Without buy-in from individuals to the range approach and the safety of knowing that their immediate performance will not be seen as a negative by the broader organization individuals may not actively engage in the path.
- **The result of increased match quality (job switching) can make individuals feel like they are falling behind** - Job switching, often the result of seeking improved match quality may leave individuals feeling behind their peers. The concept of sunk cost, time and energy committed to a pre-switch domain, may make individuals and organizations reluctant to follow through with match optimization.
- **Misaligned metrics (learner satisfaction, post-assessment scoring) reward non-rangey principles** - Current P2P metrics are short-term oriented and in many cases run contrary to effective implementation of range principles. Changes to how rP2P facilitators (recruitment, development, management) are necessary in order to properly measure range-y progress.
- **Lack of obvious linkage to near-term business results** - Rangey performance often delivers value in unexpected areas/was. Measurement and management of impact on wicked problems must be different than on kind ones. New product development (connected/wicked) should have a set of metrics distinct from new store openings (procedural/kind).
- **Short-term perception of poor performance** - Public company cadence (quarterly) may inhibit the longer term investment in a rP2P.

Net: *Lots of fences between the herd of sheep and the range. “Just let me know if you wanna go To that home out on the range. They got a lot of nice girls.” - ZZ Top*

Final Thoughts

After reviewing the publicly available research used for the compilation of this document I believe the following to be true:

- “Wicked” is an accurate description for an ever increasing portion of the business environments and the “kind” portion will increasingly face the pressures of automation and commoditization.
- The companies that win in a wicked world win exhibit a significantly higher degree of “range”.
- Adoption of range positive dimensions require significant change for both the individual seeking to increase their personal range and companies seeking to provide a range-enabling organization.
- The current structure for talent development and management is designed for the creation of specialists and ill-prepared for a shift to polymath focused human capital.
- With additional work there exists an opportunity to capture or create qualitative and quantitative metrics for assessing range on both the individual and organization levels.