COLLECTIVE MINDFULNESS

for Better Decision Making

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I want to start by talking to you about the opposite, because I think that anyone who has ever been oncall can relate to...

MIND**LESS**NESS

what is "mindLESSness?

AUTOMATIC

It's doing things automatically – commuting, the same path, day after day

or typing the same commands, looking at the same dashboards, day after day

INSTINCTUAL

It's responding without thinking

REACTIVE

In short, it's reacting; such as at...

0300

when you're...

0300
HALF-AWAKE

and...

SOMETHING
IS GOING WRONG

all of which leads to…

STRESS

2019 Catchpoint SRE survey; highlights discussed by Dawn Parzych & Jamie Woo lightning talk http://blog.catchpoint.com/2019/03/27/srecon-2019-sre-report/

SREcon19Americas Lightning Talks link: https://www.usenix.org/conference/srecon19americas/presentation/lightning-talks; the slides aren't very helpful (except for the resource links at the end which are https://github.com/jaimewoo/SRE-stress-resources and http://bit.ly/2019SRE-Report), but the video is worth watching from about 5m-10m

VOLATILE
UNCERTAIN
CHAOTIC
AMBIGUOUS

These situations are common enough across industries and professions that they have become know by this acronym: VUCA

Now let's look at an antidote…

MIND**FUL**

What is mindFULness?

TO BE MINDFUL IS TO SEE MORE CLEARLY

seeing more clearly
than when you're stressed out

INDIVIDUAL MINDFULNESS

...STATE OF CONSCIOUSNESS... FOCUSED ON INTERNAL AND EXTERNAL PHENOMENA.... ACCEPTING, OPEN, AND NONJUDGMENTAL ATTITUDE TOWARD PHENOMENA THAT ARE PERCEIVED IN THE PRESENT MOMENT

for an individual:

* present state,
* internal & external,
* accepting,
* open,
* non-judgemental

COLLECTIVE MINDFULNESS CAPABILITY TO DISCERN DISCRIMINATORY DETAIL ABOUT EMERGING ISSUES AND TO ACT SWIFTLY IN RESPONSE TO THESE DETAILS

Discern details, so that you can act swiftly

Research shows positive correlation to good organizational outcomes including
* greater customer satisfaction (Ndubisi 2012);
* more effective resource allocation (Wilson et al. 2011);
* greater innovation (Vogus & Welbourne 2003);
* and improved quality, safety, and reliability (e.g., Vogus & Sutcliffe 2007a,b)
especially in high stress situations (VUCA)

COLLECTIVE MINDFULNESS

AN ENVIRONMENT AND PROCESSES WHEREIN INDIVIDUALS WHO PARTICIPATE HOLD EACH OTHER JOINTLY RESPONSIBLE TO CONTINUOUSLY EVALUATE THE ENVIRONMENT

There are five key distinguishing characteristics of organizations manifesting collective mindfulness. . .

and I think you'll find that many SREs and SRE organizations fit these pretty well

firstly, there is a preoccupation with. . .

FAILURE

A preoccupation with failure: prevents failures by focusing on discovering incipient failures and their components.

Focus on points of failure by:
- increasing alertness,
- fighting inertia,
- looking for new alternatives,
- identifying errors, and
- developing processes to prevent mistakes

FAILURE
SIMPLIFICATION

A reluctance to simplify interpretations Promotes a thoughtful, data-driven process that considers the uniqueness of a problem before applying a solution. It discourages the blind adoption of cookie-cutter solutions to problems without thorough consideration of the problem's unique context.

FAILURE
SIMPLIFICATION
OPERATIONS

A sensitivity to operations

Recognizes that a solution to one problem may create another and therefore process-wide measurement is essential.

This is accomplished through sharing real time data, shifting problems to experts, and engaging in face to face communication.

Effective organizations (HROs) distinguish among three modes of operating: normal, up-tempo, and crisis and adapt their reactions accordingly.

FAILURE SIMPLIFICATION OPERATIONS RESILIENCE

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A commitment to resilience Encourages the use of individual initiative to maintain process improvements long-term. It encourages activities to prevent failures and relies on the expertise of front-line workers to reduce response time and counter immediate, evolving threats or ''absorb'' as much of the threat as possible.

FAILURE SIMPLIFICATION OPERATIONS RESILIENCE EXPERTISE

Recognize experiential expertise
An under-specification of structures refers to using the highest level of recognized expertise in improving reliability, not necessarily the higher-ranking "boss". Under-specification of structures discourages excessive formal ranks instead it relies on the lowest-level possible – most direct experiential expertise

FAILURE
SIMPLIFICATION
OPERATIONS
RESILIENCE
EXPERTISE

- Preoccupation with failure
- Resist simplification of explanations
- Focus on operations
- Commitment to resilience
- Respect experiential expertise (under-specify formal structures)

How do these relate to concepts that we've heard about in the SRE field over the last few years?

PSYCHOLOGICAL SAFETY

» Welcoming diverse views and perspectives

» Facts over counterfactuals

» "Hermeneutic of Generosity" - assume best intent

» Acknowledge that expertise resides "on the ground" not in theoretical constructs

» Learning / Generative Culture

Let's start with "psychological safety" - these attributes intersect with collective mindfulness but are not the same

Refer to Google's Project Aristotle and chapter 27 in the *Seeking SRE* by John Looney:
* Project Aristotle
* *Seeking SRE*, chapter 27
The other important components are...

ANTICIPATING PROBLEMS: KNOWING WHERE TO LOOK

F - S - O

Anticipating problems - studies of expertise have found that expertise involves knowing *where to look*

This is enhanced by
- the focus on failure,
- refusal to simplify, and
- staying attuned to operations

The other side of the coin is...

CONTAINING PROBLEMS

R-E

Containing or limiting problems is facilitated with resilience and practical expertise

RESILIENT TEAMS

Let's explore a little bit more what characterizes *resilient* teams

(I haven't had a chance to read it yet, but based on prior work, I recommend checking out Lara Hogan's new book *Resilient Management*)

The first characteristic of resilient teams is. . .

RESILIENT TEAMS
(1) SKILLED AT IMPROVISATION

» deep knowledge of basics

» recombine understandings on the spot

» improvise by making new uses of old resources & making do

improvisation

Reliable systems spend time improving their capacity to
- do a quick study,
- develop swift trust,
- engage in just-in-time learning,
- simulate mentally, and
- work with fragments of potentially relevant past experience.

Not only are resilient teams good at "thinking on their feet", but they are also…

RESILIENT TEAMS
(2) ADOPT ATTITUDE OF WISDOM

» more you know, more you don't know

» avoid overconfidence, overcaution

» near miss =

  » danger in guise of safety

  » <u>not</u> safety in guise of danger

humility / wisdom

Reliable performance increases when close calls are interpreted as danger masquerading as safety and decreases when close calls are deemed as safety in the guise of danger.

both of these aspects come from how they communicate...

RESILIENT TEAMS
[3] PRACTICE RESPECTFUL INTERACTION

» provide trustworthy reports

» trust the reports of partners

» resolve differences while maintaining self-respect

effective and respectful interactions

- trustworthy and trusted
- able to work out differences

Resilience can't happen without good communication. Sometimes when things get heated, it can be helpful to fall back to a standardized ritual of communication. . .

STICC MODEL OF COMMUNICATION

» <u>S</u>ituation: Here's what I think we face

» <u>T</u>ask: Here's what I think we should do

» <u>I</u>ntent: Here's why

» <u>C</u>oncern: Here's what we need to watch

» <u>C</u>alibrate: Now talk to me

walk through S-T-I-C-C

* situation

* task

* intent

* concern

* calibrate

Think about other "rituals" of communication - such as postmortem templates, SWOT analyses, etc.

practice to make this an instinctual fallback under stress

1. We had a good "map" of each person's talents and skills

2. We talked about mistakes and ways to learn from them

3. We discussed our unique skills with each other so that we knew who has relevant specialized skills and knowledge

4. We discussed alternatives as to how to go about our normal work activities

5. When discussing emerging problems with co-workers, we usually discussed what to look out for

6. When attempting to resolve a problem, we took advantage of the unique skills of our colleagues

7. We spent time identifying activities we did not want to go wrong

8. When errors happened, we discussed how we could have prevented them

9. When a crisis occurred, we rapidly pooled our collective expertise to attempt to resolve it

Measure with a 7-point Likert scale ("not at all" ➡ "to a very great extent")
Average over all items for a total score

validated survey to evaluate mindful organizing/operations Vogus (2011) Mindful Organizing, chapter 50

F - S - O - R - E

FAILURES
SIMPLIFICATIONS
OPERATIONS
RESILIENCE
EXPERTISE

Summary of the characteristics of collective mindfulness

Next: actions to create or enhance...

LEADERSHIP TO FOSTER COLLECTIVE MINDFULNESS

» Ongoing staff education, supporting front-line staff decisions, and postevent debriefings

» Active leaders with more confidence in themselves and their subordinates more frequently and skillfully engaged in dynamic delegation

» Clear purpose, language, and procedures

» Trusted and supportive leadership

ORGANIZATIONAL PRACTICES TO IMPROVE COLLECTIVE MINDFULNESS

» Active socialization (e.g., through vivid stories)

» Continuous training and simulations of rare events

» Empowerment (i.e., delegating authority)

» Anti-Patterns

  » Systems can hurt mindfulness by routinizing, automating, and otherwise making work inflexible and difficult to enact.

Flight crews trained in crew resource management such as training in effective communication, how to work as a team (e.g., workload sharing), error detection, and decision making are more mindful

* Systems can improve mindfulness by heightening attention through cultivating awareness of risks, careful analysis of issues, and increased organizational collaboration, as well as by enriching action repertoires
* Systems can hurt mindfulness by routinizing, automating, and otherwise making work inflexible and difficult to enact.

> ### *"A well-designed organization is not a stable solution to achieve, but a developmental process to keep active."*
>
> Starbuck & Nystrom, 1981

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