

# Search Relevance Organizational Maturity Model

MICES 2019 Berlin | Eric Pugh | @dep4b



# ~~Search Relevance~~ ~~Organizational Maturity~~ ~~Model~~ “The Missing Ingredient”

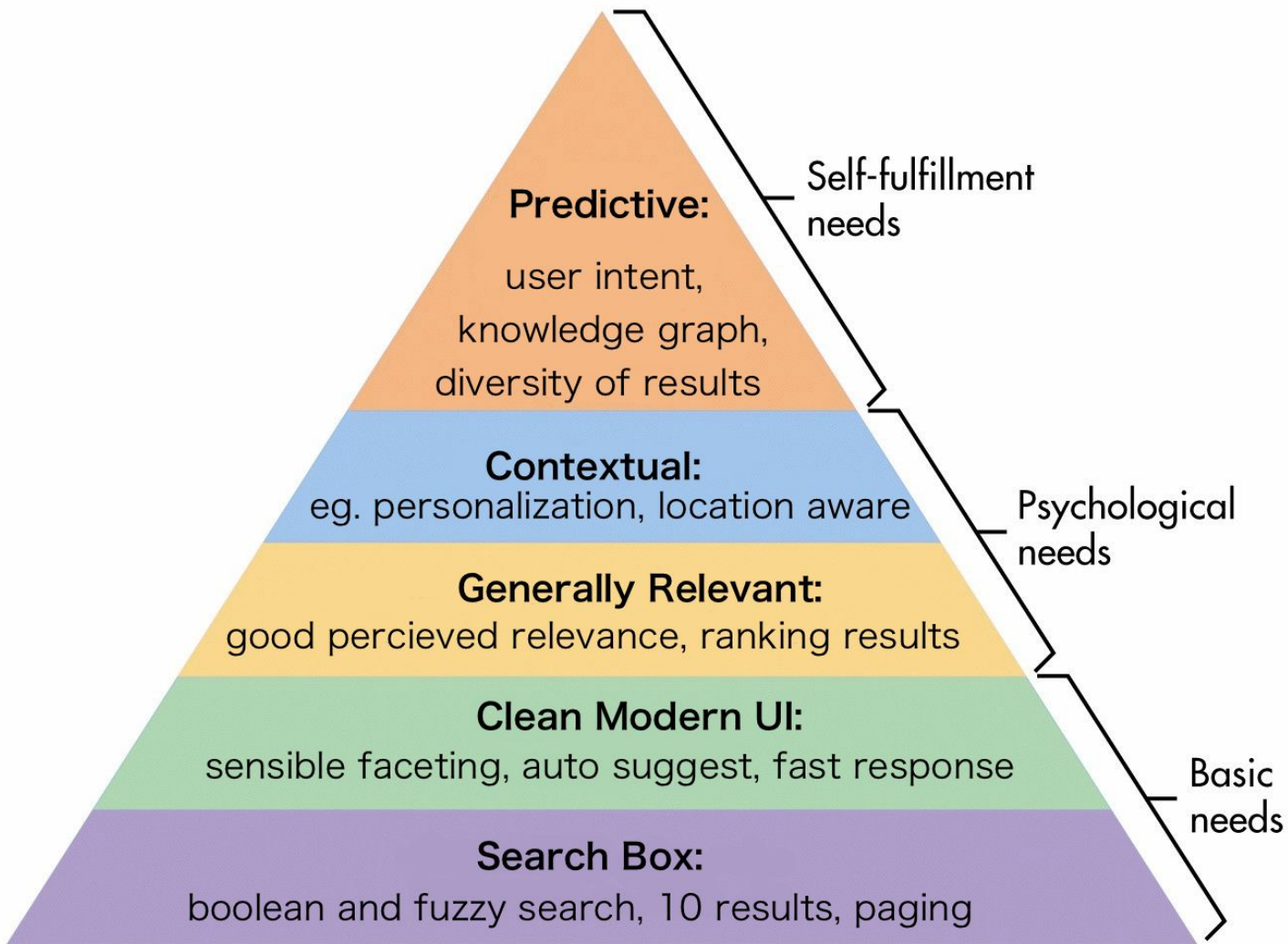
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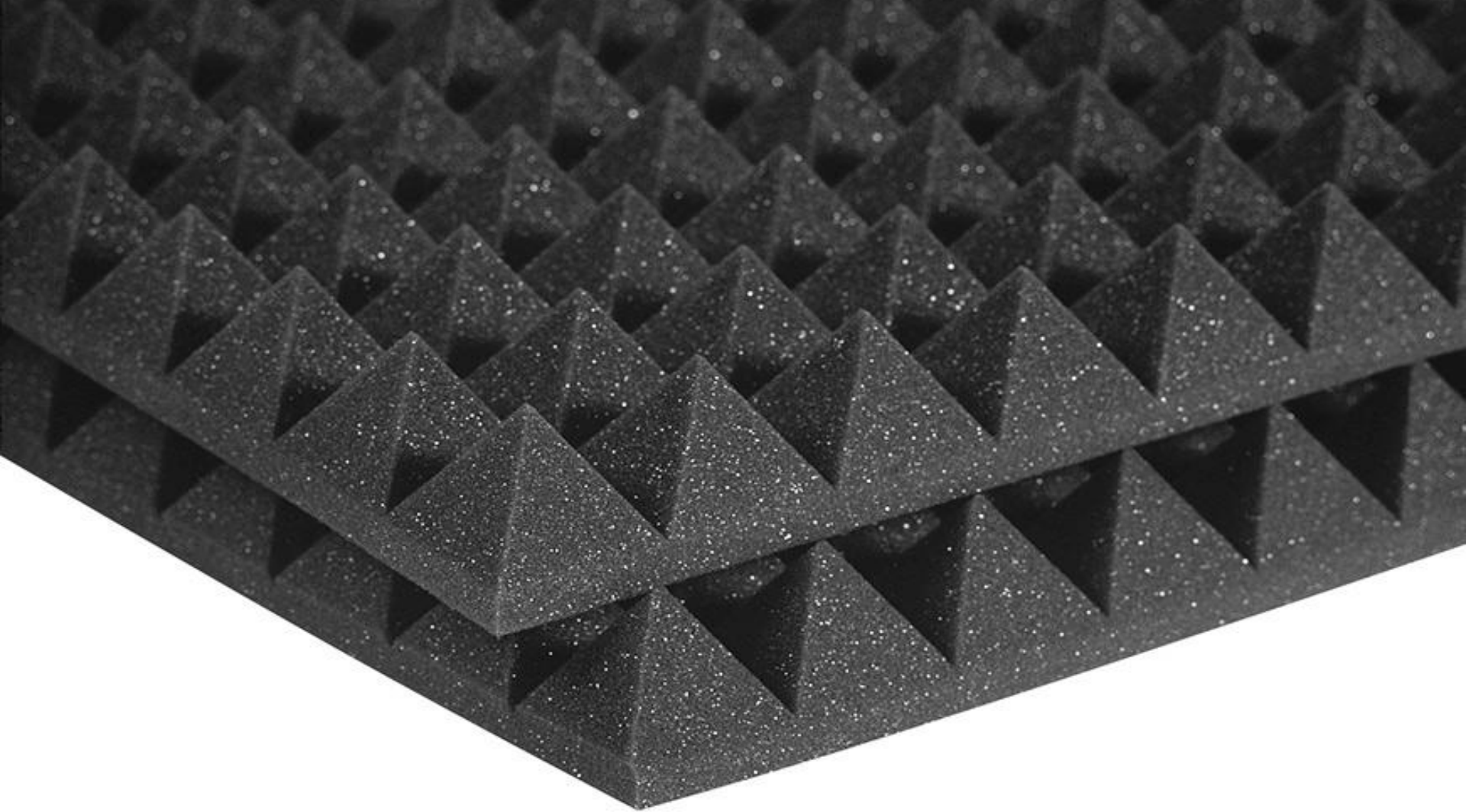


# People are the Magic Ingredient!

Sebastian leading the conversation at yesterday's *E-commerce Search for Product Managers* class







	<b>Business</b>	<b>Understand User Needs</b>	<b>Search Tech</b>	<b>Experiment Driven</b>	<b>UX</b>	<b>Content Enrichment</b>	<b>Data Inventory</b>
<b>Advanced</b>	Business stakeholders use real-time KPIs	Producing quality data from analytics	Develops custom plugins	Ops supports A/B testing & offline tests	Innovative Discovery (chatbots, etc)	NLP & Data science team	Varied, complex, large-scale data
<b>Practitioner</b>	Occasional reporting	Some user testing / basic analytics	Complex relevance config; uses plugins	Available, but complex experiments	UI supports findability	Taxonomies / Ontologies	Moderate data complexity
<b>Baseline</b>	Business impact not measured	No query logs or user testing	Stock or moderately tweak config	Test search manually, deployed rarely	10 search links on page	Minor enrichment (synonyms)	Very simple data model

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Maturity Model Lays  
out where you are,  
now do we have the  
team to get there?

MONITOR QUERY HEALTH  
DOCUMENT KNOWLEDGE  
INFRA HEALTH MONITOR  
DATA MAVERN - GROW DATA QUALITY IN  
ID BUSINESS / ~~IT~~ DEPENDENCY ON SEARCH  
TWEAK PERFORMANCE OF SEARCH PLATFORM  
SAFE GUARD AGAINST REGRESSION  
DEFINE S.L.A.  
DEFINE BEST PRACTICES  
CRUNCH LOG DATA  
DEFINITION OF DONE & PLATFORM STAGE  
MONITOR PLATFORM HEALTH  
THEMES/TRENDS/PATTERNS IN USER  
CANONICAL DATA w/ SEARCH  
USER INTENT

OPERATING THE CLUSTER  
SCOPE SEARCH FOR PRODUCT  
CONVERSION METRICS  
CAMPAIGN OPPORTUNITIES  
UNDERSTAND USER BEHAVIOR  
PRIORITISE SEARCH TASKS  
ENSURE BACKUPS EXIST + RESTOREABLE  
FIND POSSIBILITIES IN TECH  
QUERY DEVELOPMENT  
ANXIETY FREE SEARCH DEVELOPMENT  
SEARCH RESULTS ANALYSIS & RELEVANCE  
EXPERIMENT DEFINER  
ARTICULATE LONG TERM VISION  
SOCIAL ABSTRACT REPRESENTATIONS  
MEASURE SEARCH QUALITY

## Step 2: Cluster the Tasks

- 1 OPERATING THE CLUSTER
- 2 SCOPE SEARCH FOR PRODUCT
- 3 CONVERSION METRICS
- 3 CAMPAIGN OPPORTUNITIES
- 4 UNDERSTAND USER BEHAVIOR
- 5 PRIORITISE SEARCH TASKS
- 1 ENSURE BACKUPS EXIST + RESTORE
- 2 FIND POSSIBILITIES IN TECH
- 6 QUERY DEVELOPMENT
- 1,6,4 ANXIETY FREE SEARCH DEVELOPMENT
- 3,7,4,6 SEARCH RESULTS ANALYSIS 4 RELEVANCE
- 12,8,6,3 EXPERIMENT DEFINER
- 2 ARTICULATE LONG TERM VISION
- 9,6 SOLID <sup>USER</sup> ABSTRACT REPRESENTATION
- 3,7,6 MEASURE SEARCH QUALITY



1,6,8 MONITOR QUERY HEALTH  
 \* DOCUMENT KNOWLEDGE  
 1 INFRA HEALTH MONITOR  
 10 DATA MAVERN - GROW DATA QUALITY IN  
 2 ID BUSINESS / \$ DEPENDENCY ON SEARCH  
 1,6 TWEAK PERFORMANCE OF SEARCH PLATFORM  
 6 SAFE GUARD AGAINST REGRESSION  
 2 DEFINE S.L.A.  
 9,6 DEFINE BEST PRACTICES  
 8,7 CRUNCH LOG DATA  
 5,2 DEFINITION OF DONE 4 PLATFORM STAGE  
 1 MONITOR PLATFORM HEALTH  
 8,4 THEMES/TRENDS/PATTERNS IN USER  
 10 CANONICAL DATA W/ SEARCH  
 4,8 USER INTENT

1 OPERATING THE CLUSTER  
 2 SCOPE SEARCH FOR PRODUCT  
 3 CONVERSION METRICS  
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 12,4 EXPERIMENT DEFINER  
 2 ARTICULATE LONG TERM VISION  
 9,6 SOCIAL ABSTRACT REPRESENTATIONS  
 3,7,4 MEASURE SEARCH QUALITY

① ~~INFRA~~ OPERATING THE CLUSTER  
ENSURE BACKUPS EXIST & RESTORE  
ANXIETY FREE DEVELOPMENT  
MONITOR QUERY HEALTH  
DOC KNOWLEDGE  
INFRA HEALTH MONITOR  
TWEAK PERFORM SEARCH PLATFORM  
MONITOR PLATFORM HEALTH

③ ~~MARKETING~~  
CONVERSION METRICS  
CAMPAIGN OPPORTUNITIES  
SEARCH RESULTS RELEVANCE  
EXPERIMENT DEFINER  
MEASURE SEARCH QUALITY

⑤ ~~PRIORITISE SEARCH TASKS~~

⑨ ~~ENCAPSULATE/ABSTRACT REPRESENTATIONS~~  
DEFINE BEST PRACTICES

⑪ ~~DESIGNER~~  
DESIGN GOOD USER UI

ADD KNOWLEDGE  
TO ALL

② ~~PRODUCT~~ SCOPE SEARCH FOR PRODUCT  
FIND POSSIBILITIES IN TECH  
EXPERIMENT DEFINER  
ARTICULATE LONG TERM VISION/  
ID BUSINESS/\$\$ DEPENDENCIES SEARCH  
DEFINE SLA + DESIGN GOOD UI  
DEFINITION OF DONE PLATFORM  
DATA ENRICHMENT + PRIORITISE SEARCH TASKS

④ ~~USER RESEARCH (QUALITATIVE)~~  
UNDERSTAND USER BEHAVIOR  
ANXIETY FREE DEVELOPMENT  
SEARCH RESULTS RELEVANCE  
MEASURE SEARCH QUALITY  
THEMES/TRENDS/PATTERNS USER BEHAVIOR  
USER INTENT  
DATA ENRICHMENT  
DESIGN GOOD USER UI

⑩ ~~DATA MAVERN~~  
GROK DATA QUALITY IN/  
CANONICAL DATA IN SEARCH PLATFORM  
DATA ENRICHMENT  
CLEAN UP CLUSTER

⑥ ~~ENGINEERING~~ QUERY DEVELOPMENT  
ANXIETY FREE DEVELOPMENT  
SEARCH RESULTS RELEVANCE  
EXPERIMENT DEFINER  
ENCAP/ABSTRACT REPRESENTATIONS  
MEASURE SEARCH QUALITY  
MONITOR QUERY HEALTH  
TWEAK PERFORMANCE SEARCH PLATFORM  
SAFE GUIDED REGRESSIONS + DESIGN GOOD UI  
DEFINE BEST PRACTICES + PRIORITISE SEARCH TASKS  
EXPECTATIONS VS REALITY  
⑦ ~~DATA SCIENCE (QUANTITATIVE)~~ SEARCH RESULTS RELEVANCE  
MEASURE SEARCH QUALITY  
CRUNCH LOG DATA  
⑧ ~~EXPERIMENT DEFINER~~  
CRUNCH LOG DATA  
THEMES/TRENDS/PATTERNS USER BEHAVIOR  
USER INTENT  
EXPECTATION VS REALITY

# Trying to Learn to Rank before they can Walk!

A	B	C	
Infra	YES, WE HAVE A TEAM	Michael	
Marketing	MAYBE?		
Engineering	YES		
Product	YES		
Designer	YES		
Data Science (Quantatative)	VOID		
User Research (Qualitative)	VOID		
Data Maven	VOID		



# “App and Ops Focused” Team Starting to Think about Relevance

A	B	C	D	E	F	G
Search Product Manager	Alice	VOID				
Search Architect	Bob	Carol				
Solr Ops	OPS					
Site Reliability	Dan	OPS				
Relevance Engineer	VOID					
Software Engineer	Carol					
Performance Testing	Off Shore Team					
UX Design	Jon	Alice				
Support	OPS	Red Team:	Bob	Carol	Bob	



# “Search is a Team Sport”



# Thanks!

Lets talk:

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