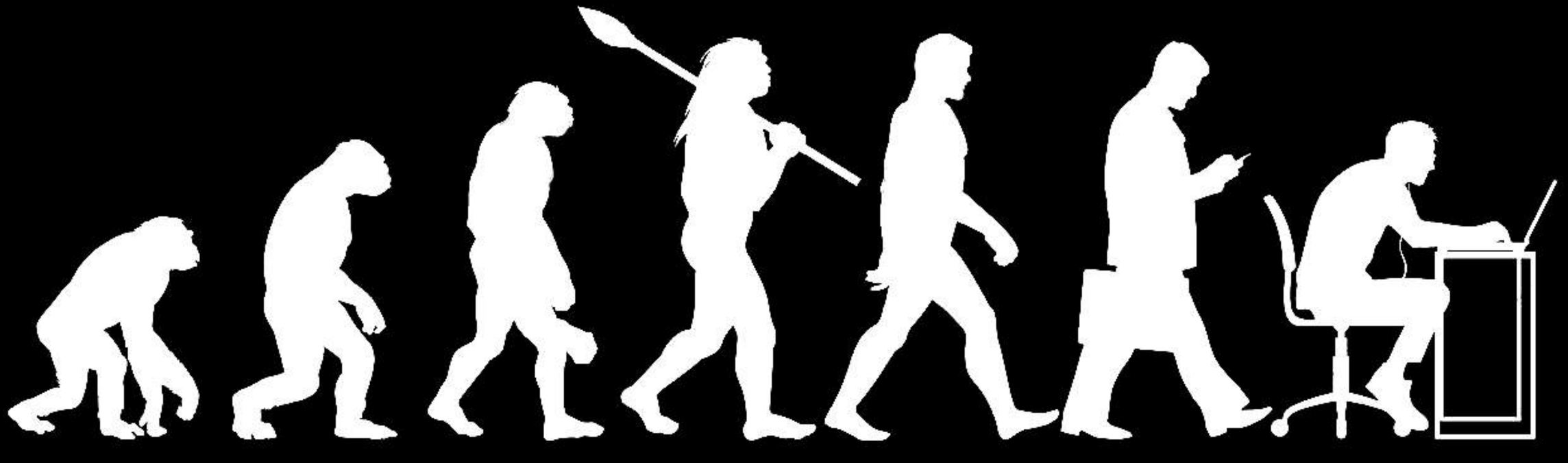
Näkökulmien evoluutio testaajan elinkaarella



Sami Söderblom

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"the adventures of a space monkey"

41 v, vaimo Malin, tytär Vilja, poika Max,
2 kissaa, jujutsu/BJJ, frisbeegolf, viskit, jne.

25+ v töissä, 15+ v testauksessa/laadunhallinnassa,
3+ v DevOpsissa, 20+ liiketoiminta-aluetta,
40+ projektia, 1000+ valmennettua sielua, jne.

Perustaja Ohjelmistotestaus ry:ssä ja
Happy Monkeyssä, testauksen & DevOpsin
valmentaja Elisalla.

Score:38 of 222 Sound:on

]use condom_

Sales order and picking process testing

	Master data, test data	Enrolment id / Change Request no
Sales order and picking process test Create normal order for local customer. Create delivery. Pick and pack order. Create invoice. Check finance postings	Domestic customer,	CR 123654

Function	Description	Role	Expected result
Create a new sales order	select sales orders and press "new" to create one	sales	
Select a customer	Select a domestic customer from the list	Sales	Use a live customer
Add a product with stock	Select one product from the list	Sales	Remember to use a product with s
Add a product with 0 in stock	Select a product with no stock - you should not be able to finish the order	Sales	Remember to use product with 0 in
Remove the product with no stock and finish the sales order	Remove the product by selecting "delete" from the menu then save the order and set it "ready to pick"	Sales	Move to next tester in the scenario
Picking and packing	**Pick and pack the created sales order**	**Logistics**	
Release the order for picking	select "set ready to pick" from the menu	Logistics	select yourself as the picker
Pick wrong item or wrong amount	Log in another region than the sales was ordered - you should not be able to register the picking list	Logistics	You should not be able to finish t
Pick the right amount	Use the correct amount	Logistics	Finish the picking list
Pack and ship the finished order	Print packing documents and set status to "shipped"	Logistics	Move to next tester in Invoicing
Printing the invoice	**Test printing the invoice**	**Invoicing**	
Find the correct invoice	Search with the number Barry Logistics logged	Invoicing	You can also search by date - you
Print the invoice	Make sure the amount is correct	Invoicing	
Register the payment	Make sure the ledgers update correctly	Invoicing	Check that the shipping fee is corr specific route

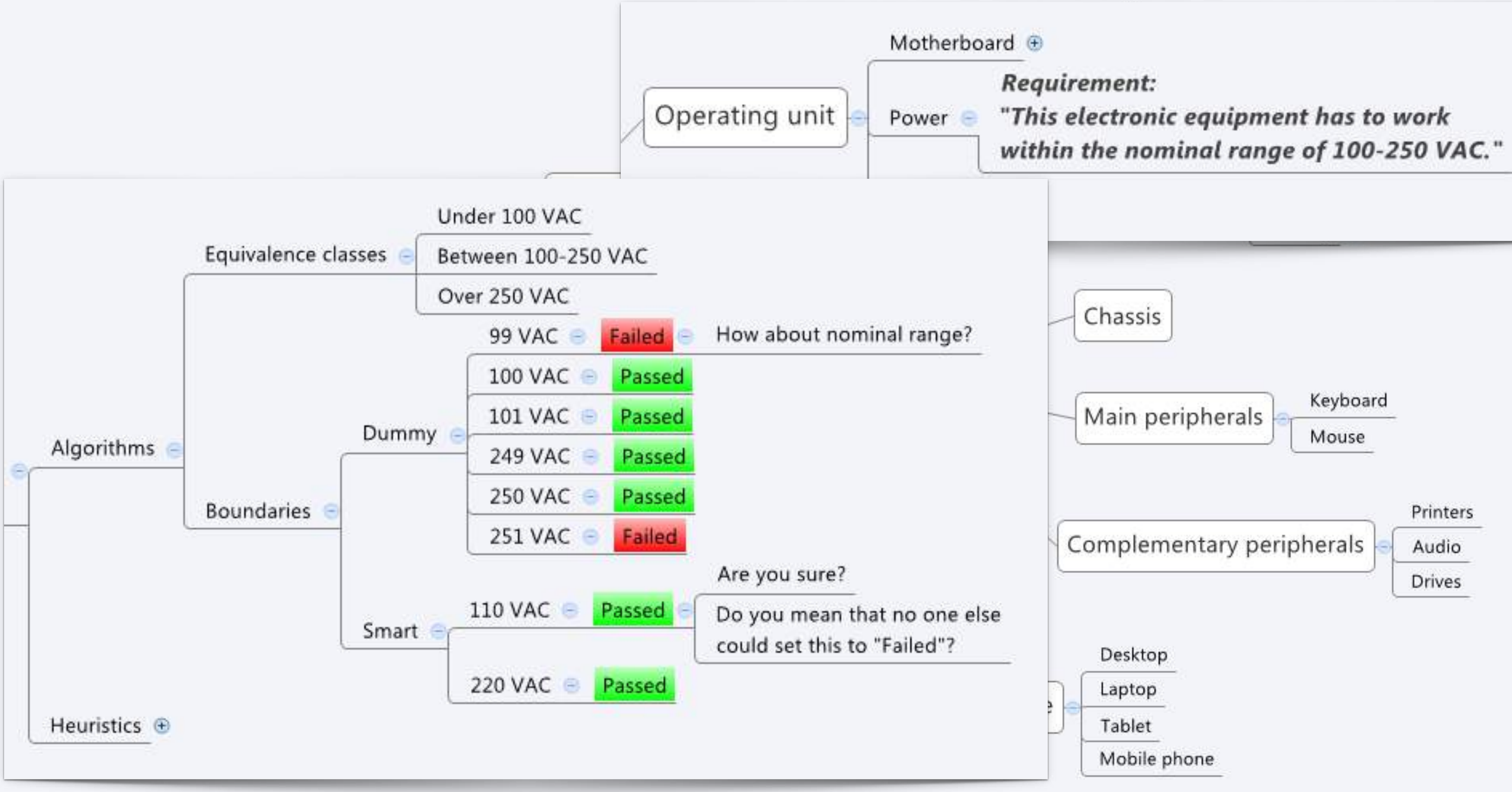
Maaret Pyhäjärvi

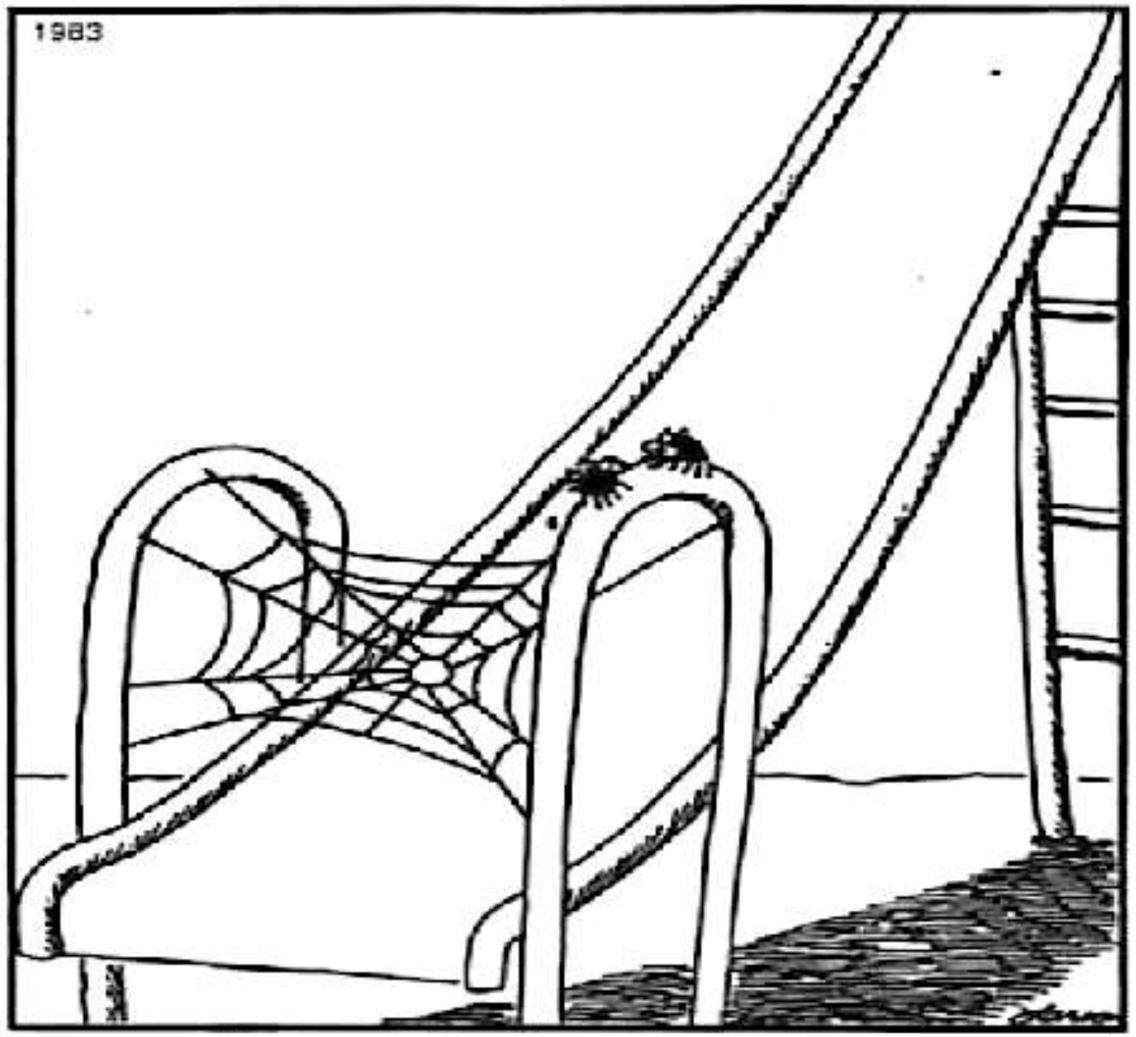
Feedback Fairy.
Tester, (Polyglot) Programmer.
Teacher and Mentor.
International Keynote Speaker.
Author.
Conference Organizer and Community Facilitator.
Engineering Manager at F-Secure.
She/Her.

I make people awesome.

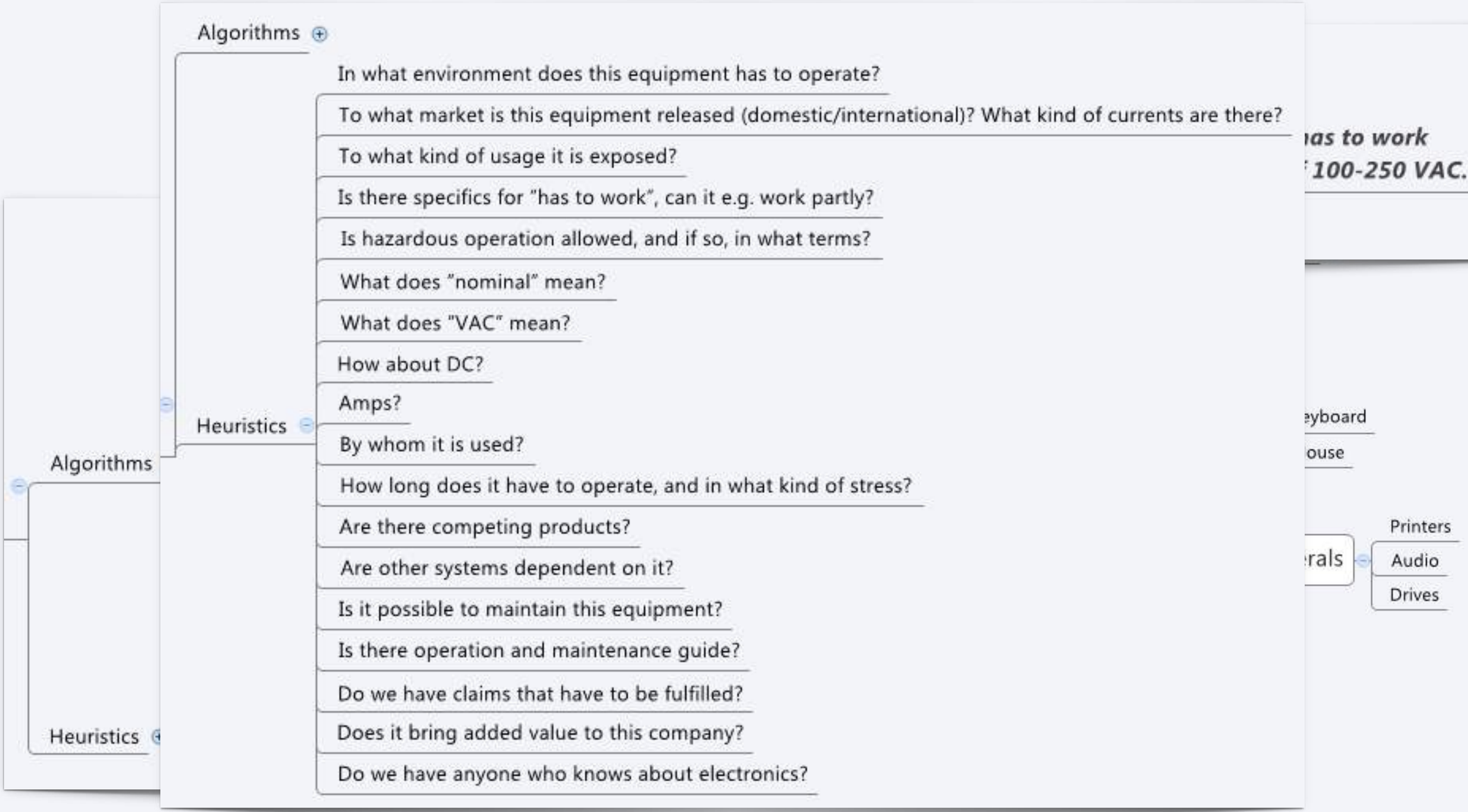
Spoken at events in 25 countries

maaretp.com


Motherboard
Operating unit
Power
Requirement:
"This electronic equipment has to work within the nominal range of 100-250 VAC."
Chassis
Main peripherals
Keyboard
Mouse
Complementary peripherals
Printers
Audio
Drives
Desktop
Laptop
Tablet
Mobile phone
Algorithms
Equivalence classes
Under 100 VAC
Between 100-250 VAC
Over 250 VAC
Boundaries
Dummy
99 VAC
Failed
How about nominal range?
100 VAC
Passed
101 VAC
Passed
249 VAC
Passed
250 VAC
Passed
251 VAC
Failed
Smart
110 VAC
Passed
Are you sure?
Do you mean that no one else could set this to "Failed"?
220 VAC
Passed
Heuristics

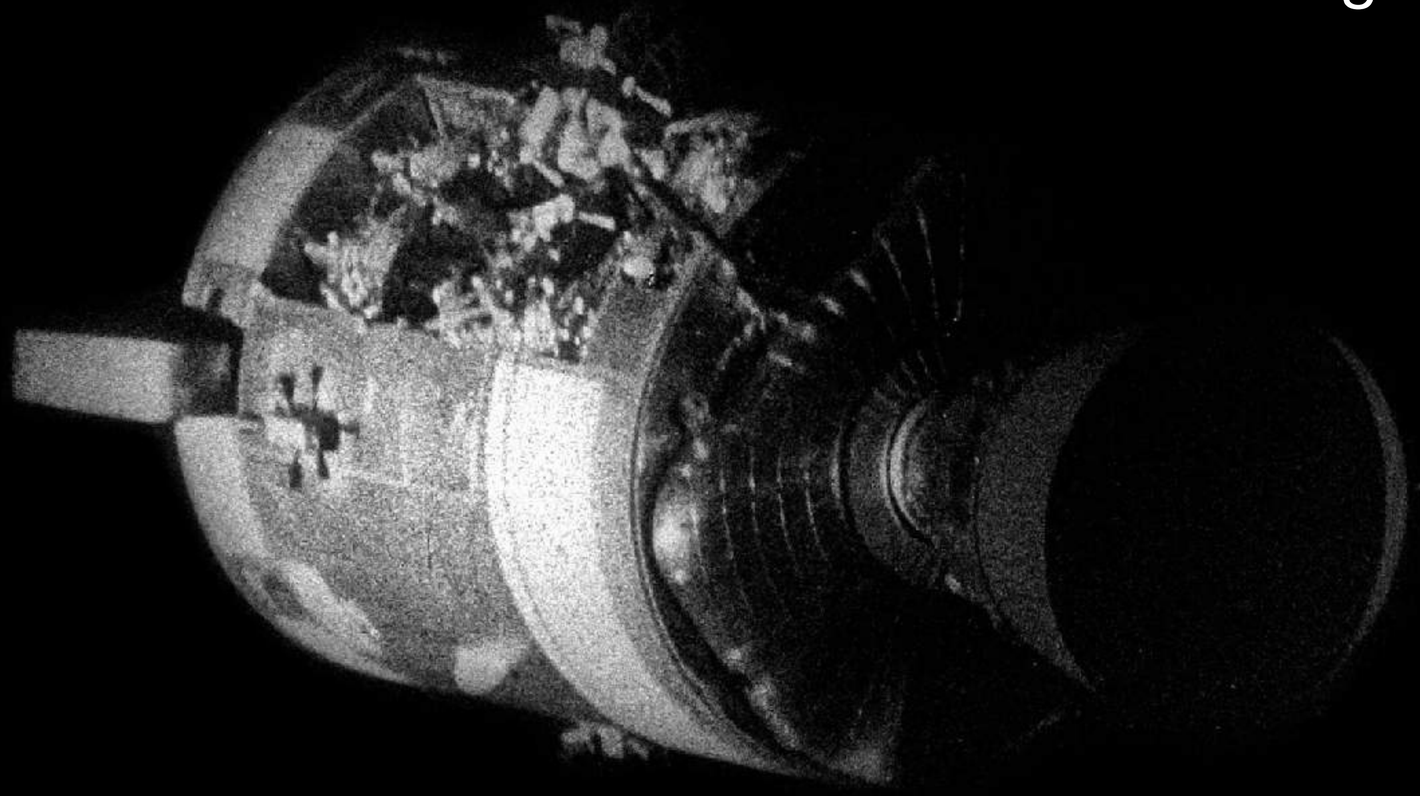


“If we pull this off, we’ll eat like kings.”


Algorithms
Heuristics
In what environment does this equipment has to operate?
To what market is this equipment released (domestic/international)? What kind of currents are there?
To what kind of usage it is exposed?
Is there specifics for "has to work", can it e.g. work partly?
Is hazardous operation allowed, and if so, in what terms?
What does "nominal" mean?
What does "VAC" mean?
How about DC?
Amps?
By whom it is used?
How long does it have to operate, and in what kind of stress?
Are there competing products?
Are other systems dependent on it?
Is it possible to maintain this equipment?
Is there operation and maintenance guide?
Do we have claims that have to be fulfilled?
Does it bring added value to this company?
Do we have anyone who knows about electronics?
Algorithms
Heuristics
as to work
100-250 VAC."
eyboard
ouse
rals
Printers
Audio
Drives

“I don't care about what anything was DESIGNED to do.
I care about what it CAN do.”

Eugene Francis "Gene" Kranz
Chief Flight Director
Apollo 11 & 13

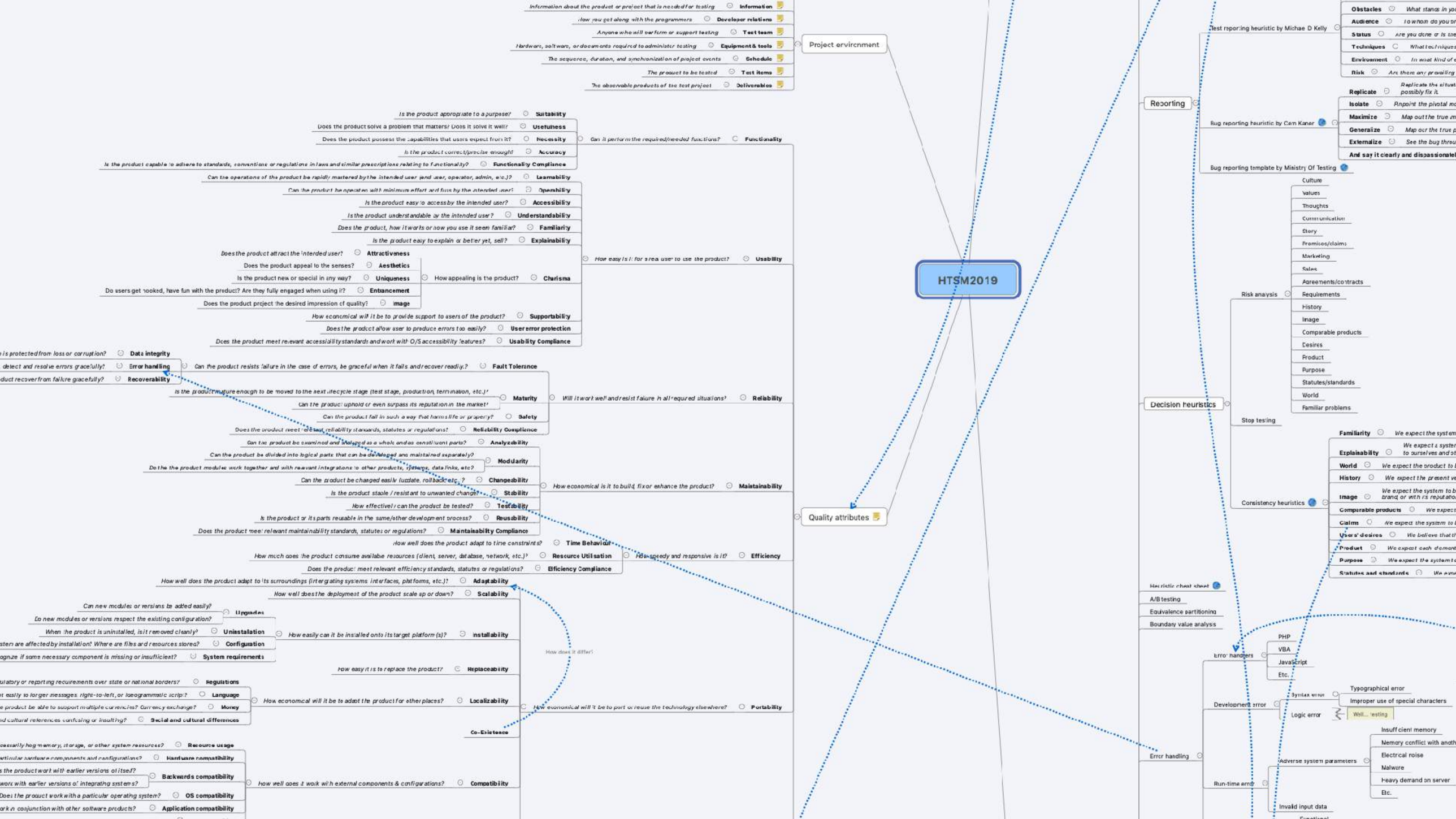



MICHAEL BOLTON

```
mymachine:~/show sami$ commonsense.ai
Sensing presentation material...
Sensing image content...
Applying common sense...
Replacing singer photos with thought leader photos...
Updating presentation.key file...
Done.
mymachine:~/show sami$ git add presentation.key
mymachine:~/show sami$ git commit -m “corrected photo”
[prod 1b2ed7b] corrected photo
 1 file changed, 1 insertion(+), 1 deletion(-)
mymachine:~/show sami$ git push -u origin master
Counting objects: 1, done.
Delta compression using up to 16 threads.
Compressing objects: 100% (1/1), done.
Writing objects: 100% (1/1), 1573391844 bytes | 1024.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0)
To https://github.com/thegreatestshowonearth/repo.git
 * [new branch]          master -> master
Branch ‘master’ set up to track remote branch ‘master’ from ‘origin’.
mymachine:~/show sami$
```

satisfice.com

developsense.com


HTSM2019
Project environment
Information about the product or project that is needed for testing
Information
How you get along with the programmers
Developer relations
Anyone who will perform or support testing
Test team
Hardware, software, or documents required to administer testing
Equipment & tools
The sequence, duration, and synchronization of project events
Schedule
The product to be tested
Test items
The observable products of the test project
Deliverables
Quality attributes
Functionality
Can it perform the required/needed functions?
Is the product appropriate to a purpose?
Suitability
Does the product solve a problem that matters? Does it solve it well?
Usefulness
Does the product possess the capabilities that users expect from it?
Necessity
Is the product correct/precise enough?
Accuracy
Is the product capable to adhere to standards, conventions or regulations in laws and similar prescriptions relating to functionality?
Functionality Compliance
Usability
How easy is it for a real user to use the product?
Can the operations of the product be rapidly mastered by the intended user (end user, operator, admin, etc.)?
Learnability
Can the product be operated with minimum effort and fuss by the intended user?
Operability
Is the product easy to access by the intended user?
Accessibility
Is the product understandable by the intended user?
Understandability
Does the product, how it works or how you use it seem familiar?
Familiarity
Is the product easy to explain or better yet, sell?
Explainability
How appealing is the product?
Charisma
Does the product attract the intended user?
Attractiveness
Does the product appeal to the senses?
Aesthetics
Is the product new or special in any way?
Uniqueness
Do users get hooked, have fun with the product? Are they fully engaged when using it?
Entrancement
Does the product project the desired impression of quality?
Image
How economical will it be to provide support to users of the product?
Supportability
Does the product allow user to produce errors too easily?
User error protection
Does the product meet relevant accessibility standards and work with O/S accessibility features?
Usability Compliance
Reliability
Will it work well and resist failure in all required situations?
Is the product is protected from loss or corruption?
Data integrity
Can the product detect and resolve errors gracefully?
Error handling
Can the product recover from failure gracefully?
Recoverability
Can the product resists failure in the case of errors, be graceful when it fails and recover readily.?
Fault Tolerance
Is the product mature enough to be moved to the next lifecycle stage (test stage, production, termination, etc.)?
Maturity
Can the product uphold or even surpass its reputation in the market?
Can the product fail in such a way that harms life or property?
Safety
Does the product meet relevant reliability standards, statutes or regulations?
Reliability Compliance
Maintainability
How economical is it to build, fix or enhance the product?
Can the product be examined and analyzed as a whole and as constituent parts?
Analyzability
Can the product be divided into logical parts that can be developed and maintained separately?
Modularity
Do the the product modules work together and with relevant integrations to other products, systems, data links, etc?
Changeability
Can the product be changed easily (update, rollback, etc.)?
Stability
Is the product stable / resistant to unwanted change?
Testability
How effective / can the product be tested?
Reusability
Is the product or its parts reusable in the same/other development process?
Maintainability Compliance
Does the product meet relevant maintainability standards, statutes or regulations?
Efficiency
How speedy and responsive is it?
How well does the product adapt to time constraints?
Time Behavior
How much does the product consume available resources (client, server, database, network, etc.)?
Resource Utilisation
Efficiency Compliance
Does the product meet relevant efficiency standards, statutes or regulations?
Portability
How economical will it be to port or reuse the technology elsewhere?
How does it differ?
Adaptability
How well does the product adapt to its surroundings (integrating systems, interfaces, platforms, etc.)?
Scalability
How well does the deployment of the product scale up or down?
Installability
How easily can it be installed onto its target platform(s)?
Upgrades
Can new modules or versions be added easily?
Do new modules or versions respect the existing configuration?
Uninstallation
When the product is uninstalled, is it removed cleanly?
Configuration
stem are affected by installation? Where are files and resources stored?
System requirements
gnize if some necessary component is missing or insufficient?
Replaceability
How easy it is to replace the product?
Co-Existence
Localizability
How economical will it be to adapt the product for other places?
Regulations
ulatory or reporting requirements over state or national borders?
Language
t easily to larger messages, right-to-left, or ideogrammatic script?
Money
e product be able to support multiple currencies? Currency exchange?
Social and cultural differences
d cultural references confusing or insulting?
Compatibility
How well does it work with external components & configurations?
Resource usage
cessarily hog memory, storage, or other system resources?
Hardware compatibility
rticular hardware components and configurations?
Backwards compatibility
s the product work with earlier versions of itself?
work with earlier versions of integrating systems?
OS compatibility
Does the product work with a particular operating system?
Application compatibility
rk in conjunction with other software products?
Reporting
Test reporting heuristic by Michael D Kelly
Obstacles
What stands in
Audience
To whom do you
Status
Are you done or is
Techniques
What techniques
Environment
In what kind of
Risk
Are there any prevailing
Bug reporting heuristic by Cem Kaner
Replicate
Replicate the situat
possibly fix it.
Isolate
Pinpoint the pivotal
Maximize
Map out the true
Generalize
Map out the true
Externalize
See the bug throu
And say it clearly and dispassionately
Bug reporting template by Ministry Of Testing
Decision heuristics
Risk analysis
Culture
Values
Thoughts
Communication
Story
Promises/claims
Marketing
Sales
Agreements/contracts
Requirements
History
Image
Comparable products
Desires
Product
Purpose
Statutes/standards
World
Familiar problems
Stop testing
Consistency heuristics
Familiarity
We expect the system
Explainability
We expect a syste
to ourselves and ot
World
We expect the product to
History
We expect the present ve
Image
We expect the system to b
brand or with its reputatio
Comparable products
We expect
Claims
We expect the system to
Users' desires
We believe that t
Product
We expect each element
Purpose
We expect the system to
Statutes and standards
We exp
Heuristic cheat sheet
A/B testing
Equivalence partitioning
Boundary value analysis
Error handling
Error handlers
PHP
VBA
JavaScript
Etc.
Development error
Syntax error
Typographical error
Improper use of special characters
Logic error
Whil... testing
Run-time error
Adverse system parameters
Insuff cient memory
Memory conflict with anoth
Electrical noise
Malware
Heavy demand on server
Etc.
Invalid input data

RPA

Hyväksymistestaus

Jäljitys

Kuormitustestaus

Staattinen koodianalyysi

Systeemitestaus

Integraatiotestaus

Käyttöliittymätestaus

Automaatio?

Analytiikka

Logihallinta

API-testaus

Yksikkötestaus

Tietoturvaskannaukset

Telemetriikka

Mutaatiotestaus

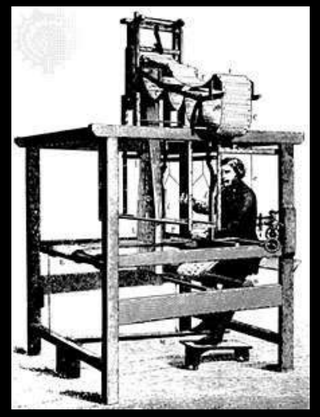
Monitorointi

Datan hallinta

HA

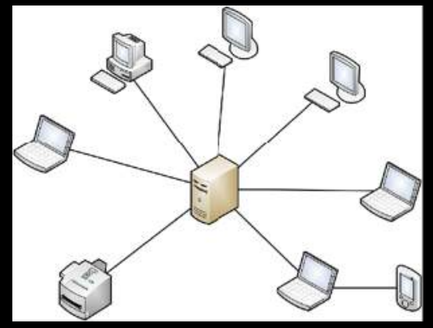

NY
DISCRAFT
JAWBREAKER
ZONE

Informaatioteknologian evoluutio



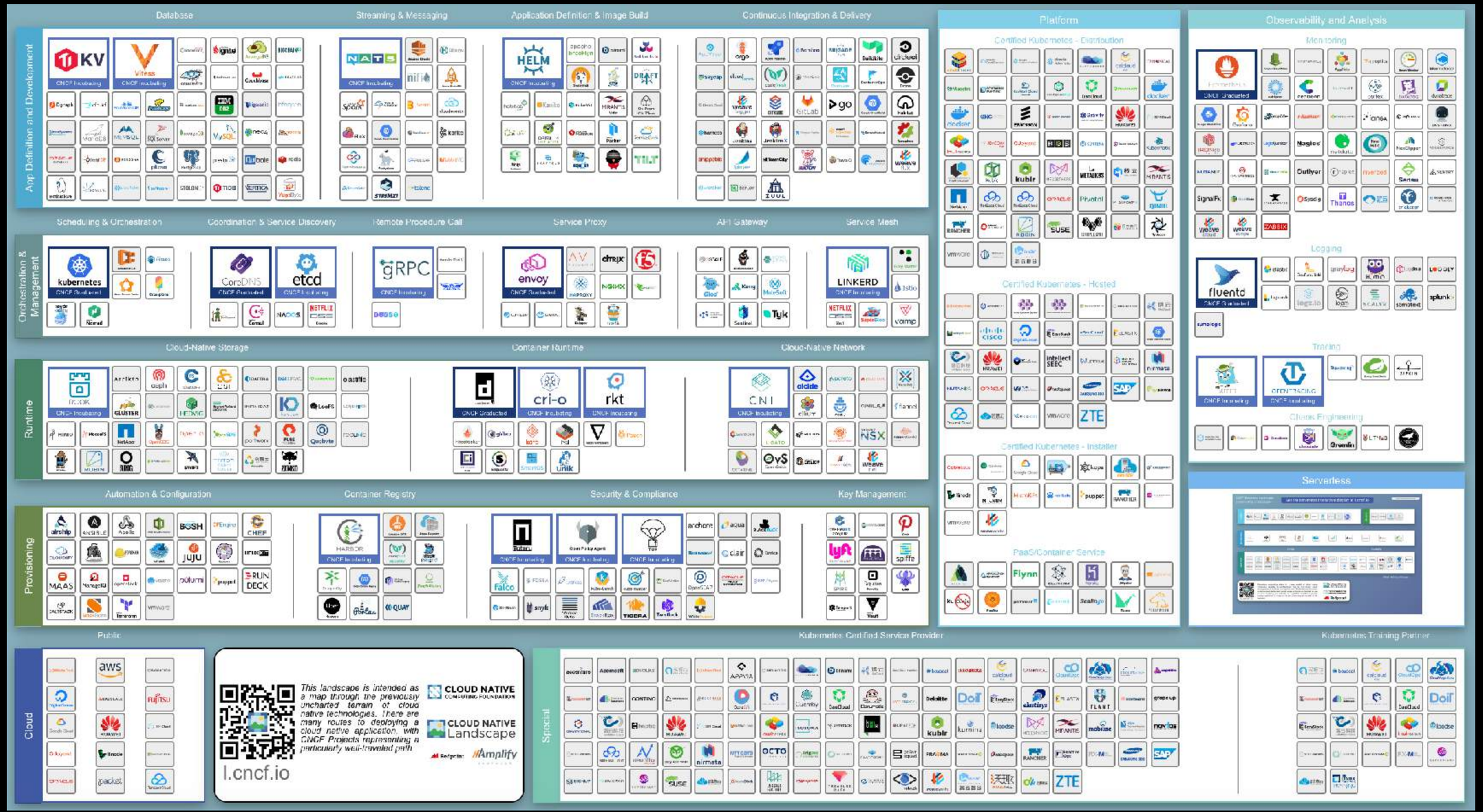
1800-luku
Jacquard-kutomakone

1970-luku
Isokoneet
DB2, COBOL, jne.



1990-luku
Client-server
C++, Oracle, jne.

2000-luku
Cloud
Java, Ruby, MySQL,
PHP, jne.



CNCF Cloud Native Interactive Landscape, landscape.cncf.io


Kausaliteetit ja korrelaatiot
Tutkimus
Oppiminen
Kokeilu
Päätösten tekeminen
Johtopäätökset
Mallinnus
Opiskelu
Organisointi
Konfliktit
Kattavuusanalyysi
Riskien arviointi
Kyseenalaistaminen
Automaatio?
Kriittinen ajattelu
Työkaluvalinnat
Yhteistyö
Järkeistys
Johtaminen
Hiljainen tieto
Ajatteluvinoumien hallinta
Systeemiajattelu
Velvollisuus
Johdonmukaisuudet
Voimavarojen
Harkinta
Arvaukset/mutu
Markkina-analyysi
Priorisointi
Odottamattomuudet

KIITOS