

5 steg till kreativ testning

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Steg 1

- Ni är här idag...

Steg 2

- Glöm bort att det finns 5 steg till kreativ testning...

”en bra testare har ofta tur”

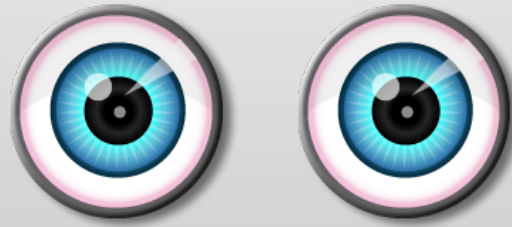
“Testing is an extremely creative and intellectually challenging task”

(Glenford Myers, 1979)

Agenda

- Vikten av kreativitet
- En miljö för kreativitet
- "Fuska" med kreativiteten

Kreativitet



- Var skulle du vilja ha ett extra par ögon?

Definitioner av kreativitet

- “Det sägs att kreativitet består av att arrangera om saker vi vet, för att ta reda på det vi inte vet”
- “Kreativitet skapar inget nytt, snarare kombineras existerande idéer”
- ”Processen att få nya idéer som har mervärde”
 - stämmer oerhört ofta för testning!

Myter om kreativitet

- Kreativa typer
- Pengar som motivator
- Tidspress är bränsle
- Rädsla tvingar fram genombrott
- Konkurrens slår samverkan
- En strömlinjeformad organisation är en kreativ organisation
- Inspiration behövs *

* Not from **Amabile**

Finn Fem Fel



...fast du har inget facit, och vet inte hur många fel som finns
...och det kan finnas andra saker som är mycket viktigare

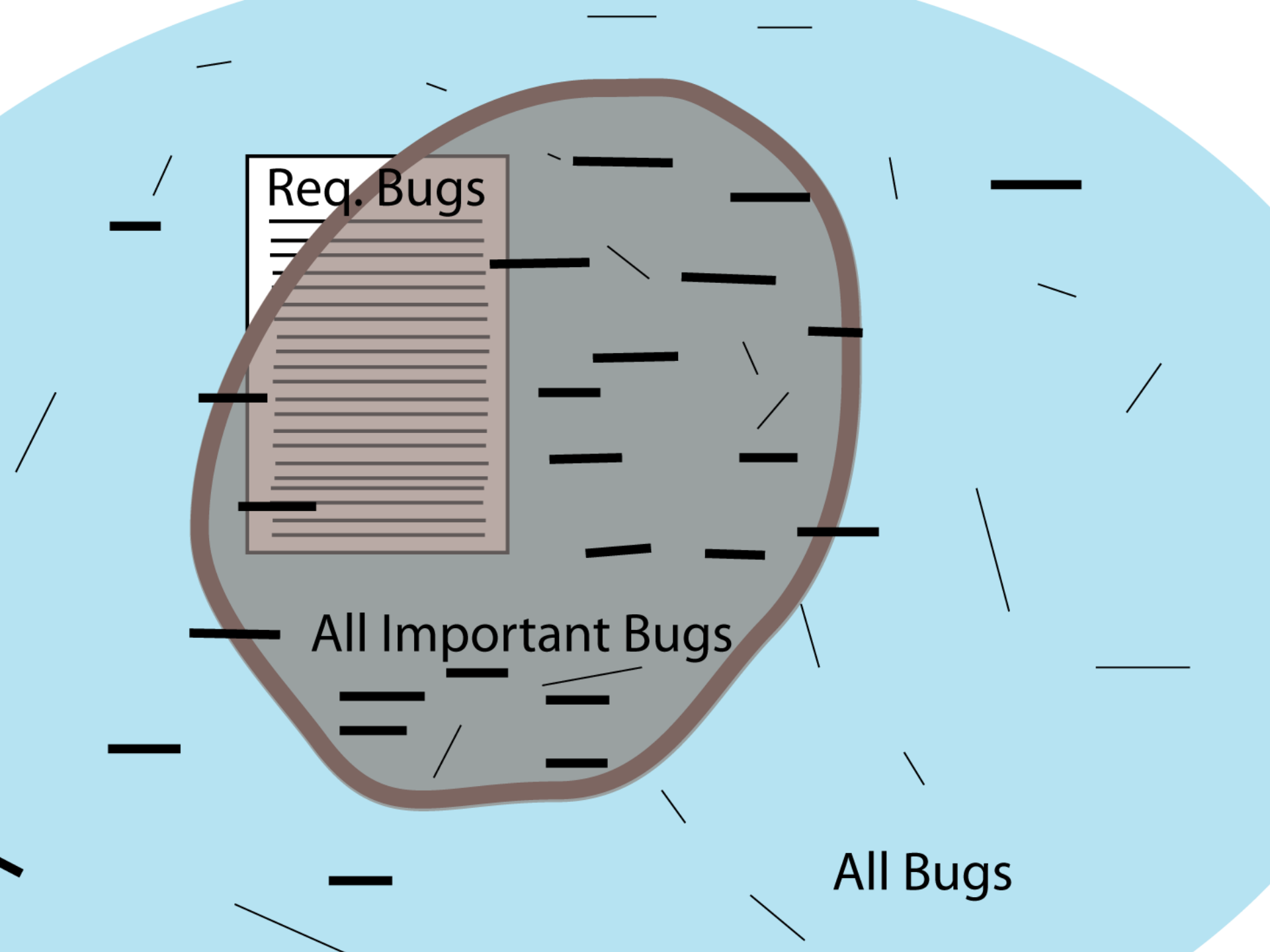
Finn Fem Fel



Varför sitter pandan på gruset och äter?

Kreativitetens nödvändighet

- vi kan inte testa allt
- identifiera möjliga tester med kreativitet
- välja tester pragmatiskt
- exekvera tester metodiskt och kreativt

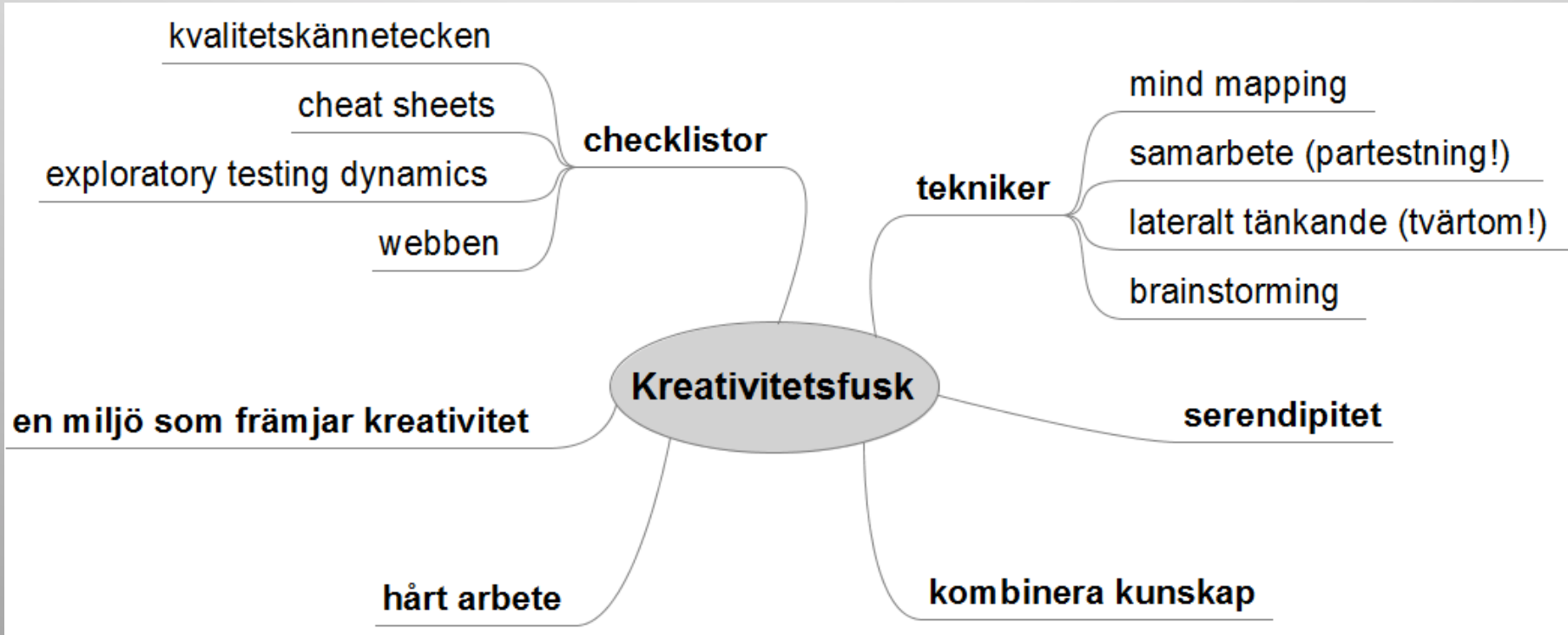


Req. Bugs

All Important Bugs

All Bugs

Kreativitetsknep



En kreativ miljö

- kompetens
- mångfald
- tillit
- tolerans
- humor*
- disciplin*
- generositet
- gemenskap
- nyfikenhet
- frihetsanda
- småskalighet
- jämlikhet

* inte **Sahlin**: *Kreativitetens filosofi*

En kreativ miljö

- främja och planera för nya sätt att testa
- fri Brolin-roll
- *“om du inte är beredd på att ha fel, så kommer du aldrig att komma på något nytt.” - Sir Ken Robinson*

Mångfald



Tekniker för kreativitet

- brainstorming, partestning
- tvärtom-metoden
- slumpad stimuli (wikipedia + gershon)
<http://testing.gershon.info/exploratory-dice-roll/>
- testidéer (enradingar)
- analogier, stjäla idéer...
- nya kombinationer, detaljer+helheten
- de Bono:
 - Six Thinking Hats

Software Quality Characteristics

Go through the list and think about your product/features. Add specifics for your context, and transform the list to your own.

Capability. *Can the product perform valuable functions?*

- *Completeness*: all important functions wanted by end users are included.
- *Correctness*: any output from the product is correct.
- *Efficiency*: performs its actions in an efficient manner (without doing what it's not supposed to do.)
- *Interoperability*: different features interact with each other in the best way.
- *Concurrency*: ability to perform multiple parallel tasks, and run at the same time as other processes.
- *Extensibility*: ability for customers to add features or change behavior.

Reliability. *Can you trust the product in many and difficult situations?*

- *Stability*: the product shouldn't cause crashes, unhandled exceptions or script errors.
- *Robustness*: the product handles foreseen and unforeseen errors gracefully.
- *Recoverability*: it is possible to recover and continue using the product after a fatal error.
- *Resource Usage*: appropriate usage of memory, storage and other resources.
- *Data Integrity*: all types of data remain intact throughout the product.
- *Safety*: the product will not be part of damaging people or possessions.
- *Disaster Recovery*: what if something really, really bad happens?
- *Trustworthiness*: is the product's behavior consistent, foreseeable, and trustworthy?

Usability. *Is the product easy to use?*

- *Affordance*: product invites to discover possibilities of the product.
- *Intuitiveness*: it is easy to understand and explain what the product can do.
- *Minimalism*: there is nothing redundant about the product's content and appearance.
- *Learnability*: it is fast and easy to learn and remember how to use the product.
- *Memorability*: once you have learnt to do something you don't forget it.
- *Discoverability*: the product's capabilities can be discovered by systematic exploration of the user interface.
- *Operability*: an experienced user can perform common actions very fast.
- *Interactivity*: the product has easy-to-understand states and possibilities of interacting with the application (via GUI or API).
- *Errors*: there are informative error messages, difficult to make mistakes and easy to repair after making them.
- *Consistency*: behavior is the same throughout the product, and there is one look & feel.
- *Tailorability*: default settings and behavior can be specified for flexibility.
- *Accessibility*: the product is possible to use for as many people as possible, and meets applicable accessibility standards.
- *Localization*: is the product translated, localized, or possible to?
- *Documentation*: there is a Help that helps, and matches the functionality.

Charisma. *How appealing is the product to users?*

- *Attractiveness*: are all types of aspects of the product "good-looking"?
- *Language*: does the product use the right language and style?
- *Hype*: does the product use too much or too little of the latest and greatest technologies/ideas?
- *Story*: are there compelling stories about the product's inception, construction or usage?
- *Entertaining*: is it fun to use the product?
- *Entrancement*: does the user get hooked and fully engaged when using the product?
- *Satisfaction*: how does it feel after using the product?
- *Professionalism*: does the product have a flair of professionalism and give you a feeling that you can rely on it?

Security. *Does the product protect against unwanted usage?*

- *Authentication*: the product's identifications of the users.
- *Authorization*: the products handling of what an authenticated user can see and do.
- *Privacy*: ability to not disclose data that is protected to unauthorized users.
- *Security holes*: product should not invite to social engineering vulnerabilities.
- *Secrecy*: the ability to under no circumstances disclose information about the underlying system.
- *Invulnerability*: ability to withstand penetration attempts.
- *Compliance*: security standards the product adheres to.

Performance. *Is the product fast enough?*

- *Capacity*: the many limits of the product, also under load, stress or slow network.
- *Response Time*: the speed of which an action is (perceived as) performed.
- *Availability*: the system is available for use when it should be.
- *Throughput*: the products ability to process many, many things.
- *Feedback*: is the feedback from the system on user actions appropriate?
- *Scalability*: how well does the product scale up, out or down?

IT-bility. *Is the product easy to install, maintain and support?*

- *System requirements*: ability to run on supported configurations, and handle different environments and components.
- *Installability*: product can be installed on intended platforms with appropriate footprint.
- *Upgrades*: ease of upgrading to a newer version without loss of configuration and settings.
- *Uninstallation*: all files (except user's or system files) and other resources should be removed.
- *Configuration*: can the installation be configured in various ways or places to support custom needs.
- *Deployability*: product can be rolled-out by IT department to different types of (restricted) environments.
- *Maintainability*: are the product and its artifacts easy to maintain and support for customer.
- *Troubleshootable*: is it easy to pinpoint errors (e.g. log files) and get help?
- *Testability*: how effectively can the deployed product be tested by the customer?

Compatibility. *How well does the product interact with software and hardware?*

- *Application Compatibility*: the product, and its data, works with other applications customer uses.
- *Operating System Compatibility*: the product can run on intended operating systems, and versions.
- *Hardware Compatibility*: the product can be used with applicable configurations of hardware.
- *Backward Compatibility*: can the product do everything the last version could?
- *Forward Compatibility*: will the product be able to use artifacts or interfaces of future versions?
- *Sustainability*: effects on the environment, e.g. energy efficiency, switch-offs, power-saving modes.
- *Standards Conformance*: the product conforms to applicable standards, regulations or laws.

<http://thetesteye.com/blog/publication>

Serendipitet

- “man letar efter något, men hittar något helt annat, som är värdefullt”
- tillfälligheter + skarpsinne
- extremt vanligt för testare med frihet
- kan vara räddningen då testning aldrig är heltäckande

Kreativ testning



- Testögat
 - vill se fel
 - ser många sorters fel
 - tittar på många ställen
 - tittar ofta

Sammanfattning

- kreativiteten växer framför allt där den tillåts växa
- vilka metoder passar dig?
- när ska du använda dem?
- *en lyx du måste ha råd med*

Frågor

- ???

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