



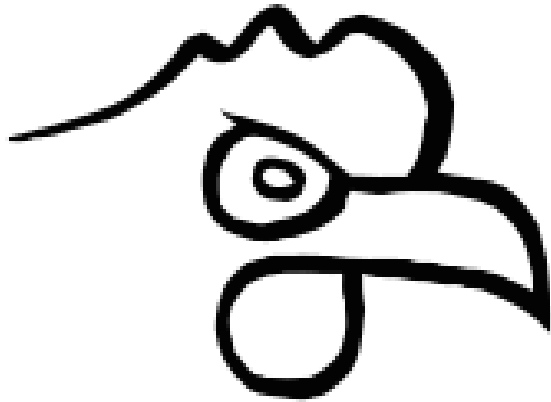
# De magie van testautomatisering

Your hosts: Rob and Ard!



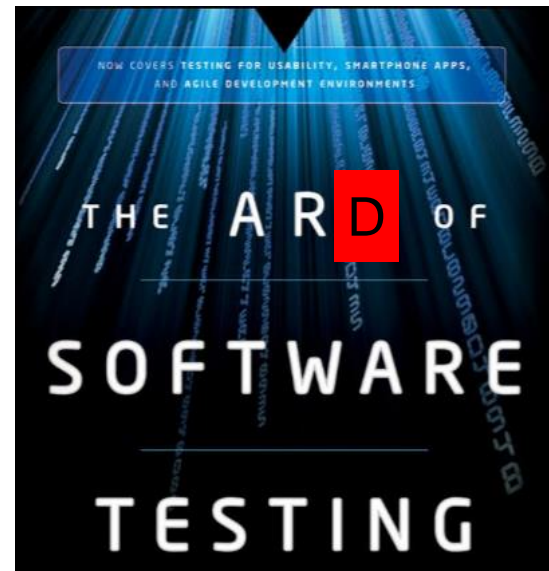
# Hallo!

Rob van Steenberg



[www.chickenwings.nl](http://www.chickenwings.nl)  
[rob@chickenwings.nl](mailto:rob@chickenwings.nl)


Ard Kramer



[www.alten.nl](http://www.alten.nl)  
[@ard\\_kramer](mailto:@ard_kramer)

# De manager en tool vendor

WELKOM BIJ myTNT BETA

 Van myTNT

Slimmer, sneller

Maak uw zendingen aan met uw smartphone.

[Nu verzenden](#) 



## DENK ERAAN

- We hebben uw feedback nodig om onze

# Managers magie

I have a dream!



Of

“u zou een droom moeten hebben”



# Managers werkelijkheid?

Nieuws

Cultuur & Leven

de Volkskrant

Opinie



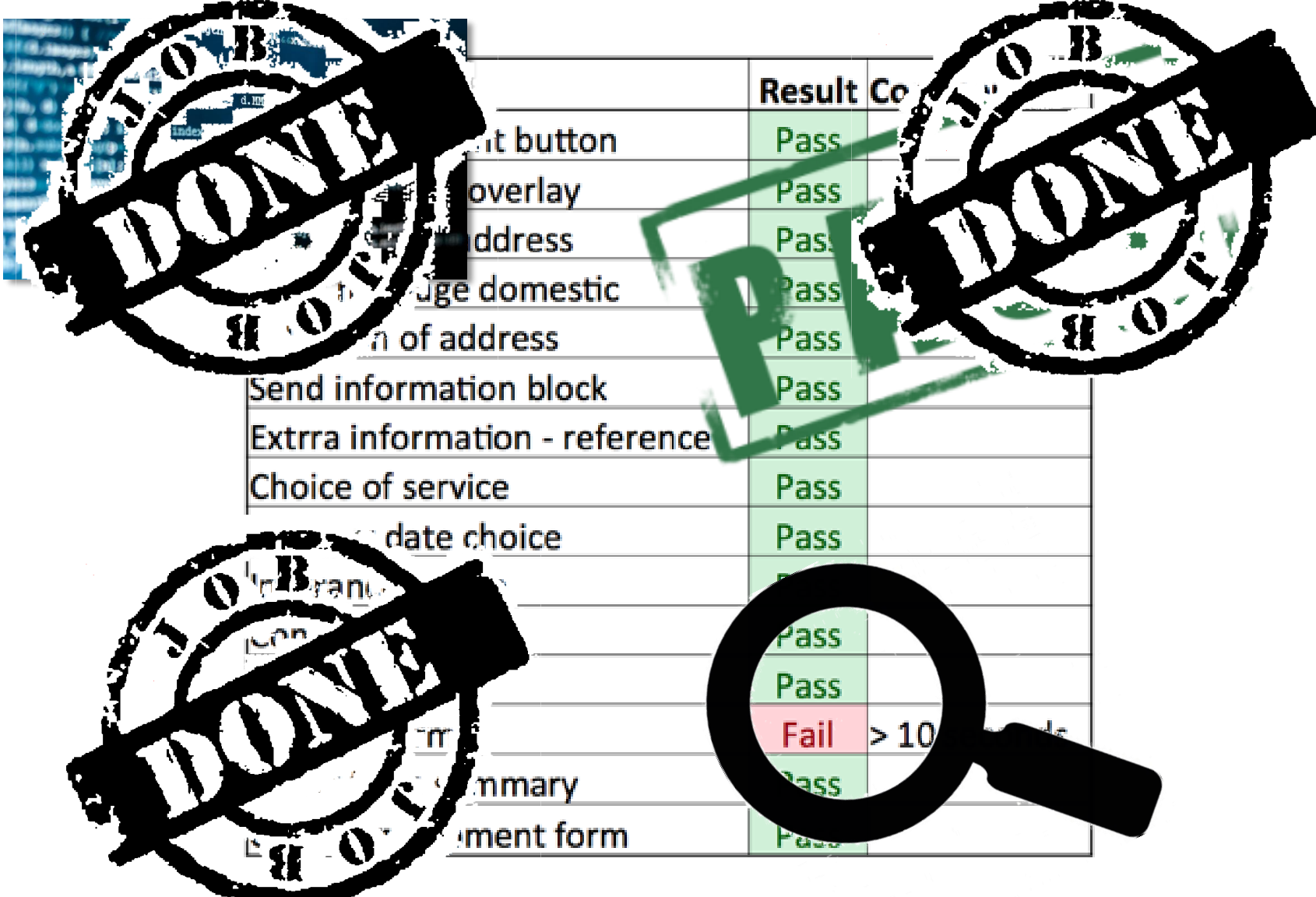
## Wat is de productiviteitsparadox?

De kwestie van Peter de Waard

**COLUMN** Nog nooit in de geschiedenis is de technologische ontwikkeling zo spectaculair geweest als in deze tijd. Digitalisering en robotisering nemen mensen zoveel werk uit handen dat de productiviteit (de productie per werknemer per uur) zou moeten exploderen. De econoom Robert Solow stelde: 'We zien overal computers om ons heen, maar niet in de productiviteitsstatistieken.'

Door: Peter de Waard 25 augustus 2016, 02:00

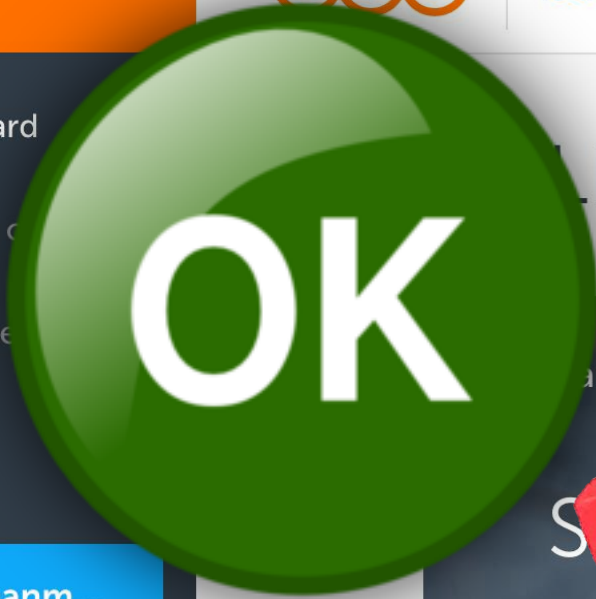
# Het automatische testrapport



	Result	Count
Print button	Pass	
Overlay	Pass	
Address	Pass	
Page domestic	Pass	
Address	Pass	
Send information block	Pass	
Extra information - reference	Pass	
Choice of service	Pass	
Date choice	Pass	
Branch	Pass	
Company	Pass	
Summary	Pass	
Payment form	Pass	
	Fail	> 10







Dashboard

Zending o

Adresboe

Help

Zending aanm...

# WELKOM BIJ myTNT BETA

an myTNT

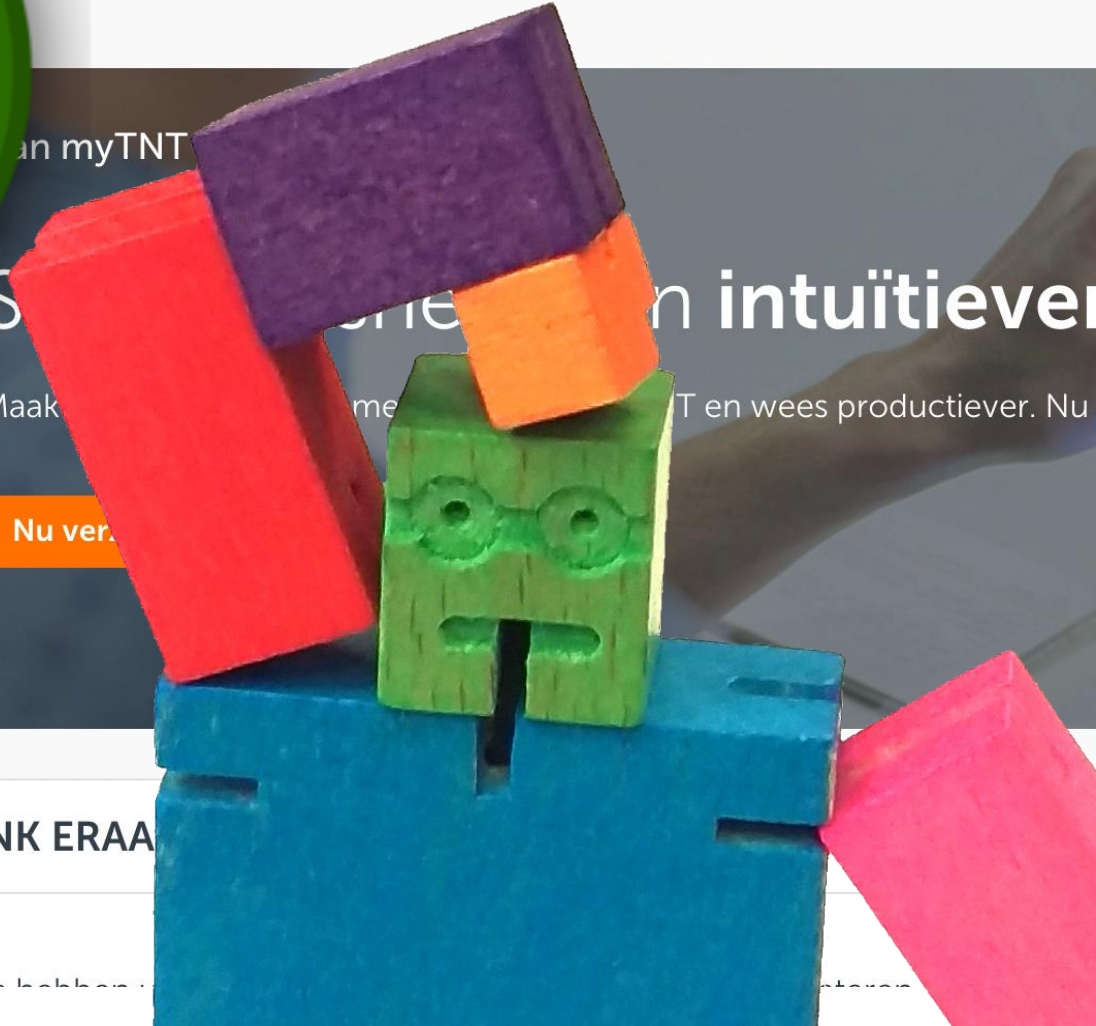
S... n intuïtiever

Maak... T en wees productiever. Nu

Nu ver...

DENK ERAA

We hebben







CAFÉ  
BAR  
LIQUEURS  
VTHS



**Voegt het waarde toe?**



Bespaart het geld?



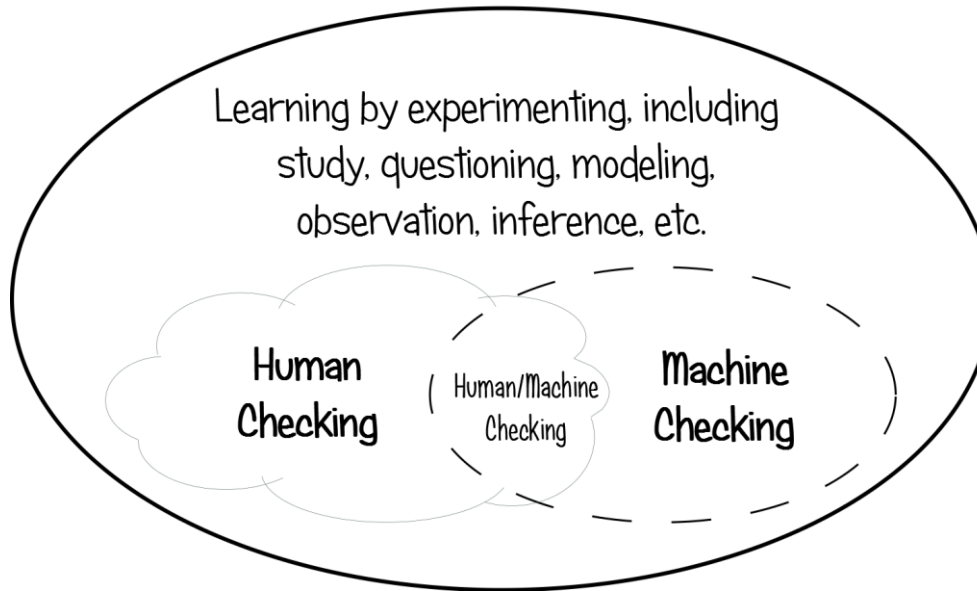
**Herkent het risico's?**



Mitigeert het risico's?

# De magie van regressie'testen'

## Testing



Automated tests	Manual Scripted	Exploratory	Fix Verification
9.3%	24.0%	58.2%	8.4%







**Kan het testers vervangen?**

# Automatiseren van creativiteit?

Meer testers nodig? Automatiseer het testen!

Laten we project management automatiseren!

Laten we programmeren automatiseren!

Automatiseer het design!

Automatiseer de retro!!

# Mastery before automation



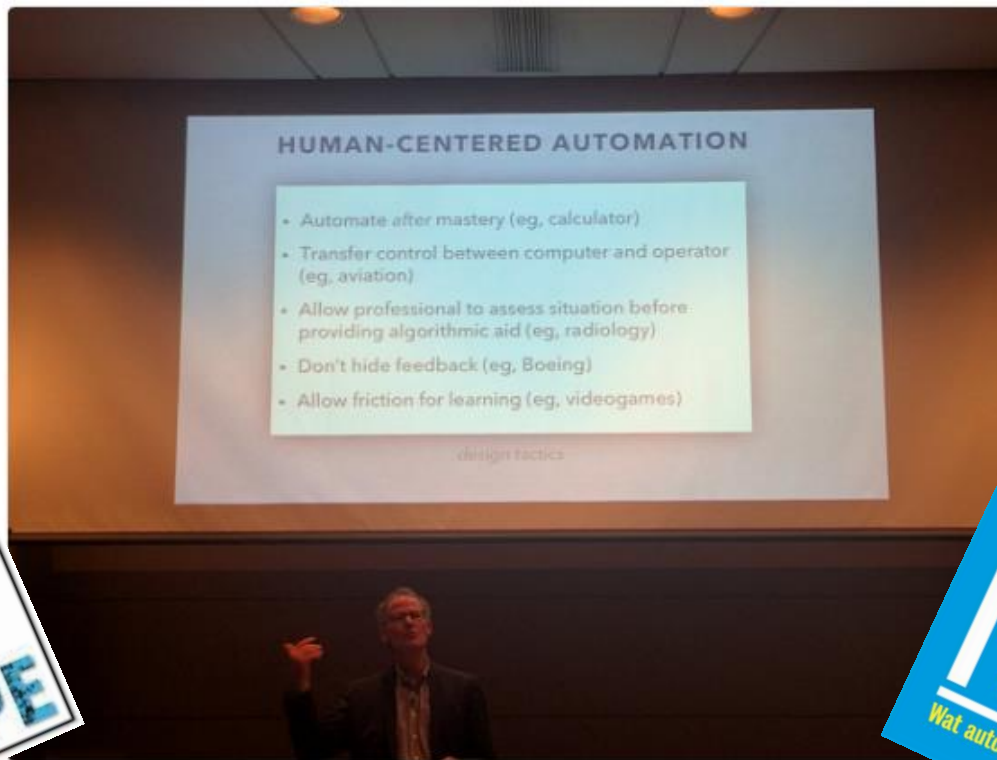
Richard Bradshaw  
@FriendlyTester



Volg je nu

Human-Centered #Automation. Automate after mastery. THIS!!! #NicholasCarr #CAST2016

Vertaling bekijken

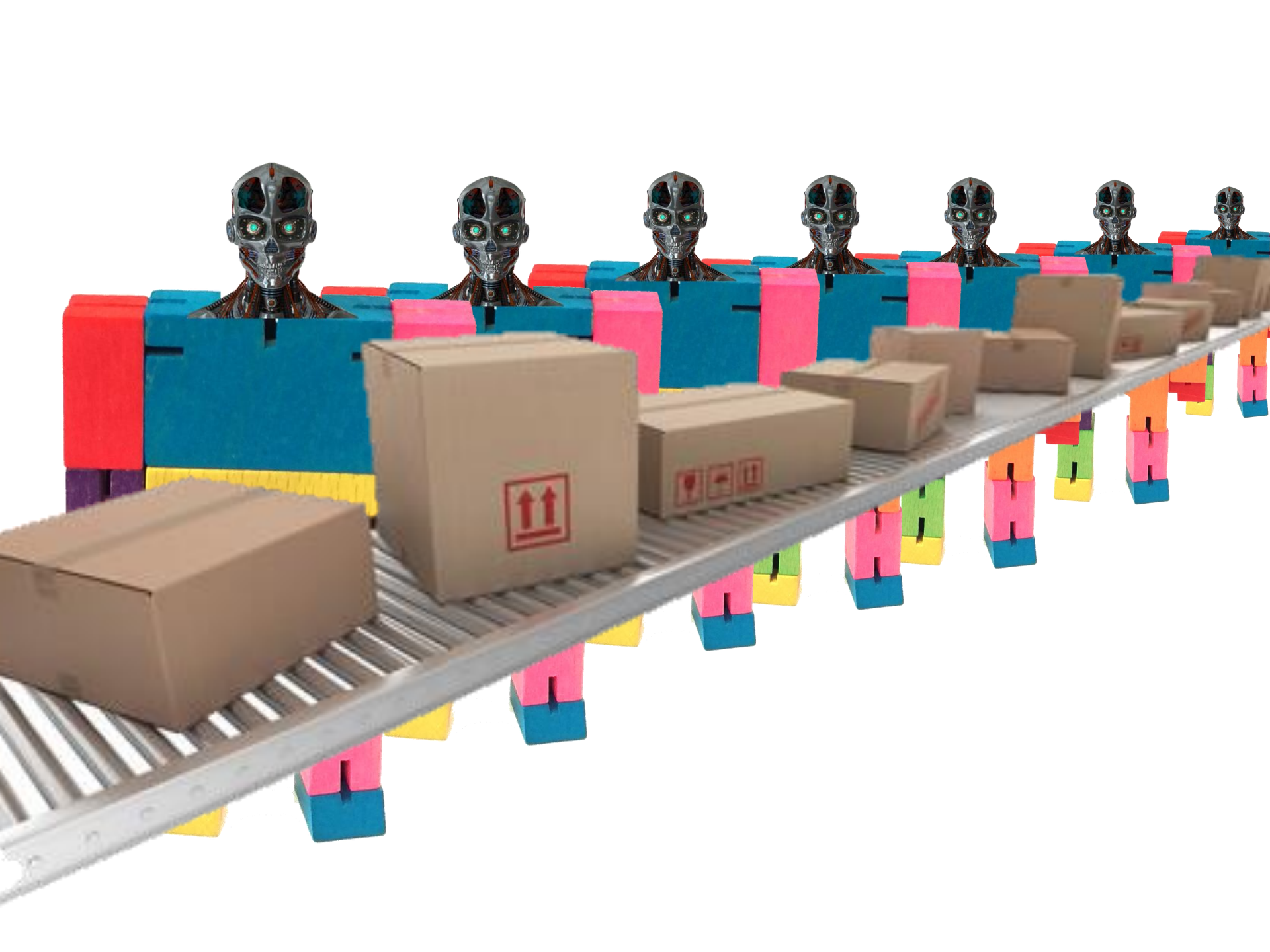


HOE ONZE  
HERSENEN  
OMGAAN MET  
INTERNET  
HET  
ONDIEPE

NICHOLAS CARR  
DE  
GLAZEN  
KOOI  
Wat automatisering met ons doet



# Is testautomatisering agile?











# Gratis testtools

- Virtual machines
  - <http://www.modern.ie/nl/>
- Tijdelijke email
  - <http://www.yopmail.com/en/>
- Converteren van audio, video, documenten
  - <http://www.online-convert.com/>
- Karakters checken
  - <http://copypastecharacter.com/>
- HTML tabellen
  - <http://html-tables.com>
- Regular expressions editor
  - <http://www.rubular.com/>

# Gratis testtools

- Bromine (voor Selenium)
  - <http://sourceforge.net/projects/bromine/>
- QA Book - Windows-based
  - <http://www.freetestmanagementtool.com>
- qaManager
  - <http://sourceforge.net/projects/qamanager>
- TestLink - Web-based Test Management system.
  - <http://sourceforge.net/projects/testlink/>
- TestMaster - A test case logging, reporting and test automation tool
  - <http://testmaster.sourceforge.net/>
- Zeta Test is an integrated test management environment
  - [www.zeta-test.com](http://www.zeta-test.com)

# Gratis testtools

- Json analyse
  - <http://jsonlint.com/>
- Online video audio en scherm sharen
  - <https://appear.in/>
- Plaatjes op bepaald formaat (random)
  - <http://loempixel.com/>
- Dummy content voor websites
  - <http://paragrabbr.heydonworks.com/>
- Simulator Android
  - <http://www.bluestacks.com/>

# Gratis testtools

- Gui testen
  - <http://www.seleniumhq.org/>
  - <https://www.autoitscript.com/site/autoit/>
- Security - OWASP ZAP
  - [https://www.owasp.org/index.php/OWASP Zed Attack Proxy Project](https://www.owasp.org/index.php/OWASP_Zed_Attack_Proxy_Project)
- API testen
  - <https://www.soapui.org/>
  - <https://www.getpostman.com/>
- Performance
  - <http://jmeter.apache.org/>

# Gratis testtools

- Exploratory tetsing
  - <http://testing.gershon.info/reporter/>
- Browser shots
  - <http://browsershots.org/>
- Performance scan
  - <https://gtmetrix.com/>
  - <https://tools.pingdom.com/>
- Link checker
  - <http://www.deadlinkchecker.com/>
  - <http://home.snafu.de/tilman/xenulink.html>

# Gratis testtools

- ACTS - Combinatorial test design
  - <http://csrc.nist.gov/groups/SNS/acts/documents/comparison-report.html>
- AllPairs
  - <http://www.satisfice.com/tools.shtml>
- FreeMind - Mind mapping for test design
  - [http://freemind.sourceforge.net/wiki/index.php/Main\\_Page](http://freemind.sourceforge.net/wiki/index.php/Main_Page)
- Xmind - Mind maps and more
  - <http://www.xmind.net/>
- Mindmup online mindmapping
  - <https://www.mindmup.com/>

# Gratis testtools

- METS - Minimal Essential Test Strategy (METS)  
– <http://www.gregpaskal.com/mets/>
- yEd Graph Editor  
– [http://www.yworks.com/en/products\\_yed\\_about.html](http://www.yworks.com/en/products_yed_about.html)
- Model based testing tool GraphWalker  
– <http://graphwalker.org/>
- Perclip testdata genereren  
– <http://www.satisfice.com/tools.shtml>

# Gratis testtools

- AutoIT
  - <http://www.autoitscript.com/autoit3/index.shtml>
- Bad Boy
  - <http://www.badboy.com.au/>
- Cucumber - Cucumber lets software development teams describe how software should behave in plain text.
  - <http://cukes.info/>
- FitNesse
  - <http://fitnesse.org>
- Mouse and Key Recorder
  - <http://www.kratronic.com>



# Gratis testtools

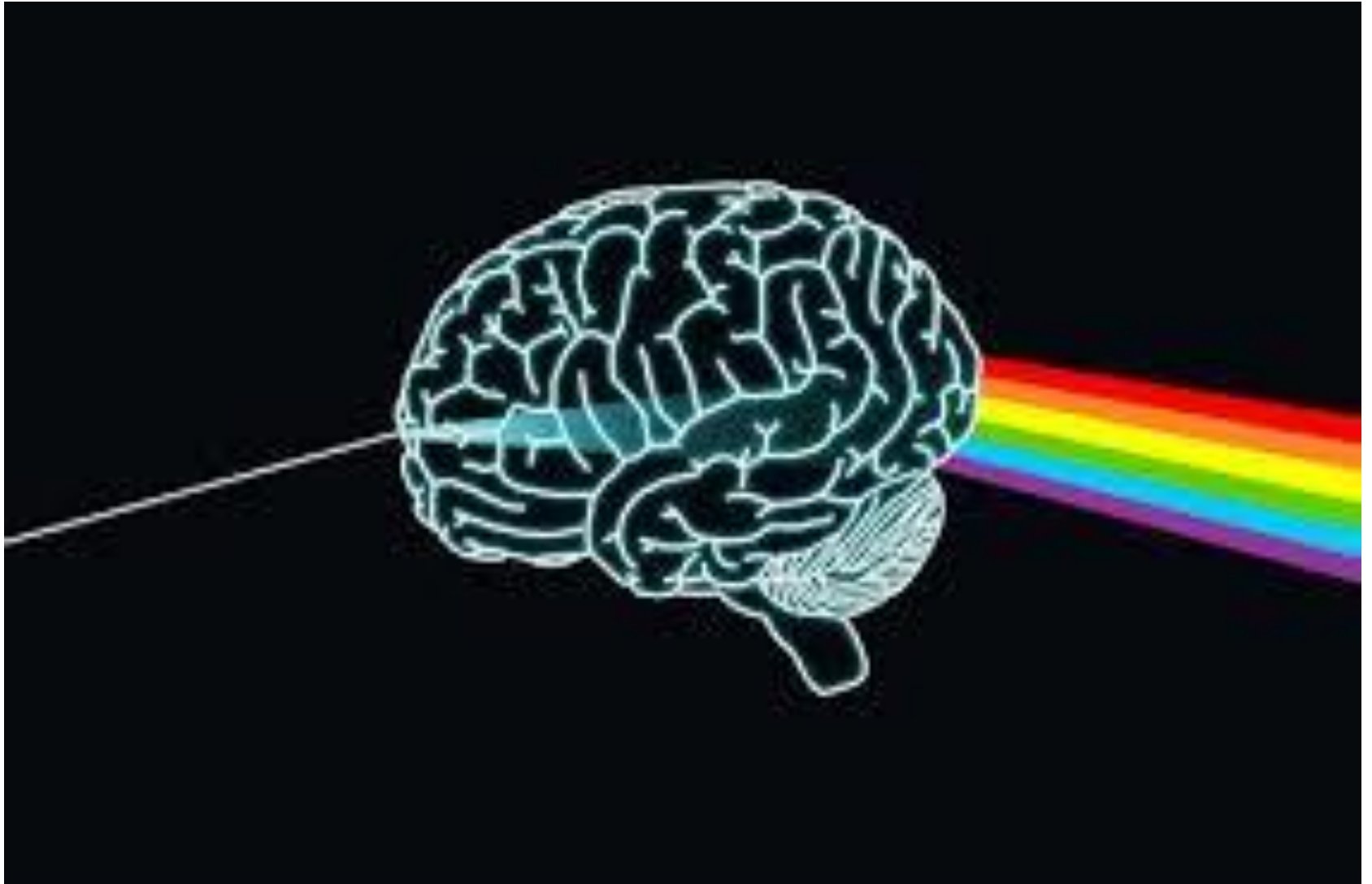
- ExamDiff and ExamDiff Pro
  - [http://www.prestosoft.com/edp\\_examdiff.asp](http://www.prestosoft.com/edp_examdiff.asp)
- WinMerge
  - <http://winmerge.sourceforge.net/>
- Test Data Generation
  - <http://www.generatedata.com>
- Infographics voor testrapportage
  - <https://piktochart.com/>

# Gratis Firefox plugins

- <http://getfirebug.com/>
- <https://addons.mozilla.org/en-US/firefox/addon/firestorage-plus/>
- <https://addons.mozilla.org/en-US/firefox/addon/imacros-for-firefox/>
- <https://addons.mozilla.org/en-US/firefox/addon/httpfox/>
- <https://addons.mozilla.org/en-US/firefox/addon/foxguide/>
- <https://addons.mozilla.org/en-US/firefox/addon/jsonovich/>
- <https://addons.mozilla.org/en-US/firefox/addon/nimbus-Screenshot/>
- <https://addons.mozilla.org/en-US/firefox/addon/private-tab/>
- <https://addons.mozilla.org/en-US/firefox/addon/restclient/>
- <https://addons.mozilla.org/en-US/firefox/addon/spellcheckeverything/>
- <https://addons.mozilla.org/en-US/firefox/addon/tamper-data/>
- <https://addons.mozilla.org/en-US/firefox/addon/toggleresponsive/>
- <https://addons.mozilla.org/en-US/firefox/addon/web-developer/>
- <https://addons.mozilla.org/en-US/firefox/addon/cookies-manager-plus/>



# Belangrijkste testtool





# Leestip!

- A Context-Driven Approach to Automation in Testing (James Bach / Michael Bolton)

<http://www.satisfice.com/articles/cdt-automation.pdf>

# Referenties

- Common Mistakes In Test Automation PDF (Mark Fewster)
  - [http://www.automatedtestinginstitute.com/home/index.php?option=com\\_content&task=view&id=221&Itemid=76](http://www.automatedtestinginstitute.com/home/index.php?option=com_content&task=view&id=221&Itemid=76)
- Software test automation: A real-world problem PDF (Cem Kaner)
  - <http://www.kaner.com/pdfs/allegheny.pdf>
- Diverse blogs van Michael Bolton
  - <http://developsense.com/>
- Cheap and free software test tools (Randall Rice)
  - <http://riceconsulting.com/home/index.php/Software-Test-Automation/cheap-and-free-software-test-tools.html>
- Blink testing (James Bach)
  - <http://www.satisfice.com/blog/archives/33>
- MindMap: Testing and Checking (Ministry of Testing)
  - <http://www.ministryoftesting.com/2012/07/mindmaptesting-and-checking/>
- Future of Test Automation Tools & Infrastructure (Anand Bagmar)
  - <http://www.thoughtworks.com/articles/future-test-automation>

# Referenties

- Test Automation - 10 (Sometimes Painful) Lessons Learned (Dominik Dary)
  - <http://dary.de/2012/03/test-automation-10-sometimes-painful-lessons-learned/>
- GTAC 2008: Advances in automated software testing technologies (Elfriede Dustin, Marcus Borch)
  - <http://www.youtube.com/watch?v=HEpSdSyU03I>
- Ketentesten in de echte wereld (Egbert Bouman)
  - <http://www.aslfoundation.org/nl/presentaties/215-31-maart-2010-themasessie-testen-in-de-keten>
- Simulating your way out of regression testing (Gojko Adzic)
  - <http://gojko.net/2011/03/03/simulating-your-way-out-of-regression-testing/>
- How many bugs do regression tests find (Brian Marick)
  - [http://www.qanc.co.kr/4research\\_0402\\_download.htm?data\\_no=54&name=Brian%20Marick-How%20Many%20Bugs%20Do%20Regression%20Tests%20Find.pdf](http://www.qanc.co.kr/4research_0402_download.htm?data_no=54&name=Brian%20Marick-How%20Many%20Bugs%20Do%20Regression%20Tests%20Find.pdf)
- Test Blunders, by Dorothy Graham
  - <https://www.youtube.com/watch?v=v8iZlnzXYHI> -