

Guerillakrieg im Softwarejungle



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im Softwarejungle

Montag, 18. Nov. 2019, 19 Uhr

Grosse Fragestunde - Experten geben konkrete Tipps und erklären, was hinter den Hypes steckt.

Die Themen:

- ↳ Verschlüsselung und Messenger: von WhatsApp bis Signal
- ↳ Block-Chains, Machine Learning und Big Data
- ↳ Freies Internet, IP-Pakete und Werbeblocker
- ↳ Open Source, freie Software und Linux
- ↳ Darknet und Tor

Mitbringen:

- ↳ Laptops und Smartphones zum Installieren und Ausprobieren
- ↳ Fragen

PLANET 13 Wo? Planet13
Klybeckstr. 60

Tor?
Darknet?
Ad-Blocker?
Open Source?
Block-Chains?
Neuronale Netze?
Freifunkbewegung?
Linux ausprobieren?
Email verschlüsseln?

• **Einführung - 30min**

- High-level Vorstellung der Themen:
- Internet / Anonymität / Tor / Darknet / Ad-Networks
- OpenSource und Freie Software
- Big Data / Maschinelles Lernen
- Blockchains

• **Parallele Miniworkshops**

- Stellt Fragen
- Wechsel möglich

Wer bin ich

- **Doktorand der Informatik**
- **Arbeite auf**
 - Privacy
 - Machine Learning
 - Anonymous Communication

Das Internet

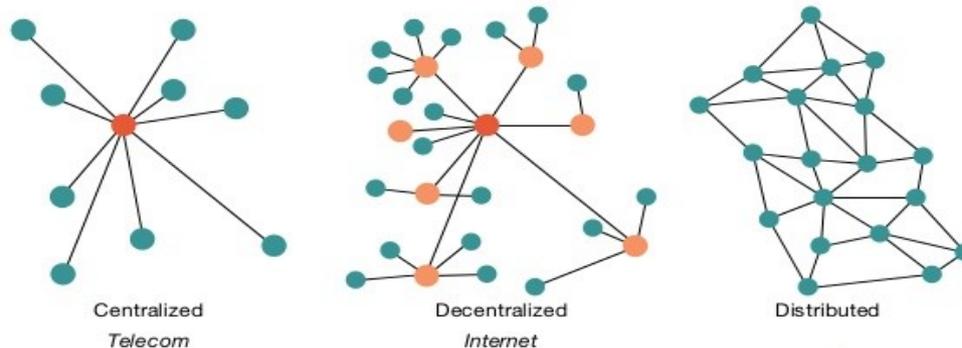
- **Daten versendet in Paketen**

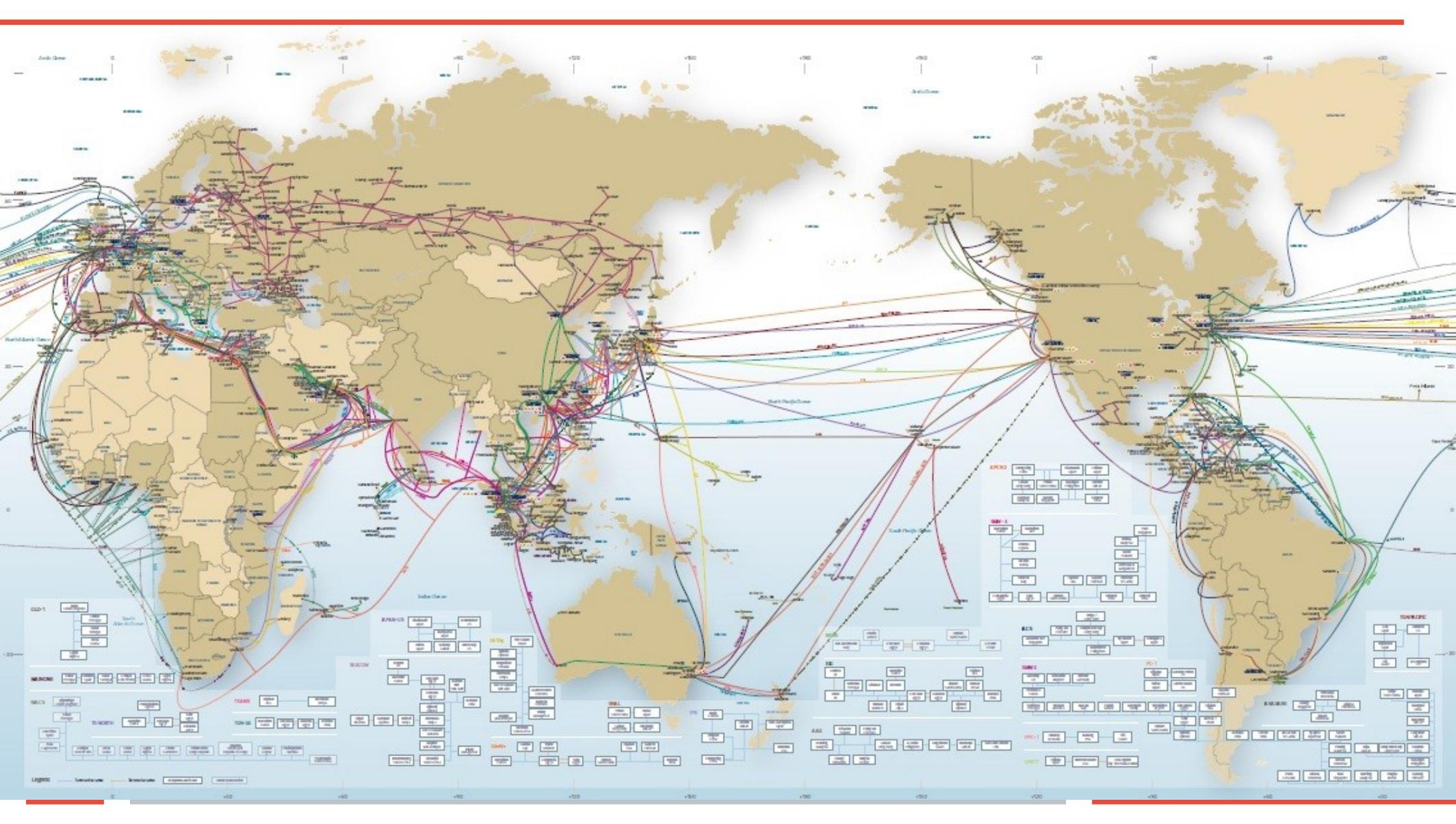
- Internet Protokoll → IP-Pakete.
- Paket mit Ursprungs- und Ziel-Adresse
- IP-Adresse: Nummer z.B. «192.168.123.123»

GlobalLogic™

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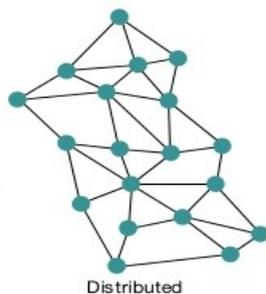
“Decentralized” vs “Distributed”





Anonymität

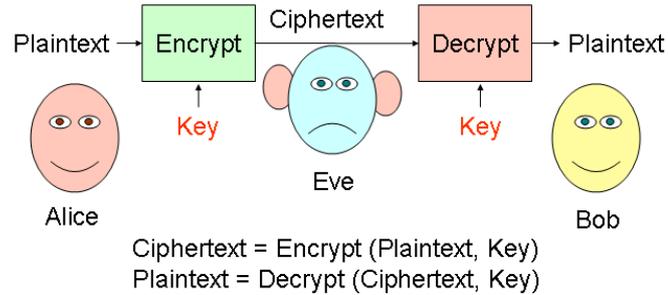
- **Adressen bekannt**
 - Kommunikationspartner bekannt.
- **Kontrolle des Netzwerks durch wenige**
 - Zugangspunkte (Wlan-Router)
- **Freies Internet (Freifunk-Bewegung)**
 - Netzneutralität



What People Think
Real Mesh Networks Should Look Like

Option 1: Verschlüsseln

- **Was ist Verschlüsselung**



- **End2End Encryption**

- (Signal, WhatsApp)

- **Aber: Endpunkte (IP-Adressen) immer noch bekannt**

Fig. 1a: Encryption in transit

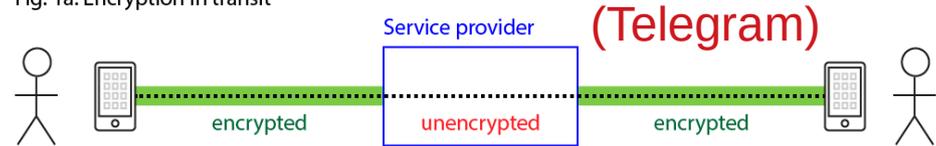
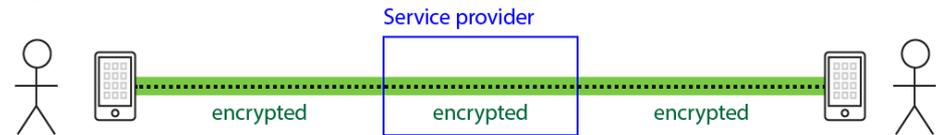


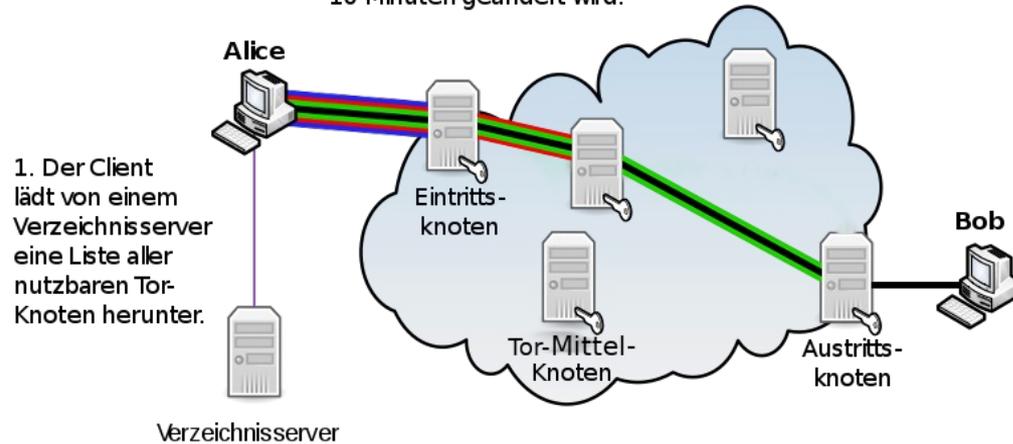
Fig. 1b: End-to-end encryption



Ein Beispiel: Tor

- **3 Hops (über 3 Server-IP-Adressen)**

2. Der Client baut zum Ziel eine zufällige Route über drei Tor-Knoten auf, die alle 10 Minuten geändert wird.



- **In der blauen Wolke: Eine Art des Darknets**
- **Zensur-Umgehung (Iran, China ...)**

OpenSource und Freie Software

- **Vor 20 Jahren: Software meistens «proprietär»**

- genaue Wirkweise geheimgehalten

- **Machtposition der Firmen**

- Beispiel: Stadtverwaltung München

- **Miteinander statt gegeneinander**

- Sourcecode (Wirkweise) öffentlich
- Kollaboratives Entwickeln.

- **Viele verschiedene Varianten**

- Lizenzen, Copyleft, no Copyleft, etc

- **Public Money, Public Code**

```
bool bFTF = true; //initialization
bool bStore = true;
while(!set.IsEOF())
{
    row.Get(&set); //get data row
    bStore = true;
    if(!bFTF)
    {
        if(lastRow.ID.Compare(row.ID) == 0 &&
            lastRow.PointID1.Compare(row.PointID1) == 0 &&
            lastRow.PointID2.Compare(row.PointID2) == 0 &&
            lastRow.PointID3.Compare(row.PointID3) == 0
        )
        {
            bStore = false; //don't store
        }
    }

    if(bStore)
        row.Write(fl); //write data
    lastRow = row;
    set.MoveNext();
    bFTF = false; //reset ftf flag
}
```

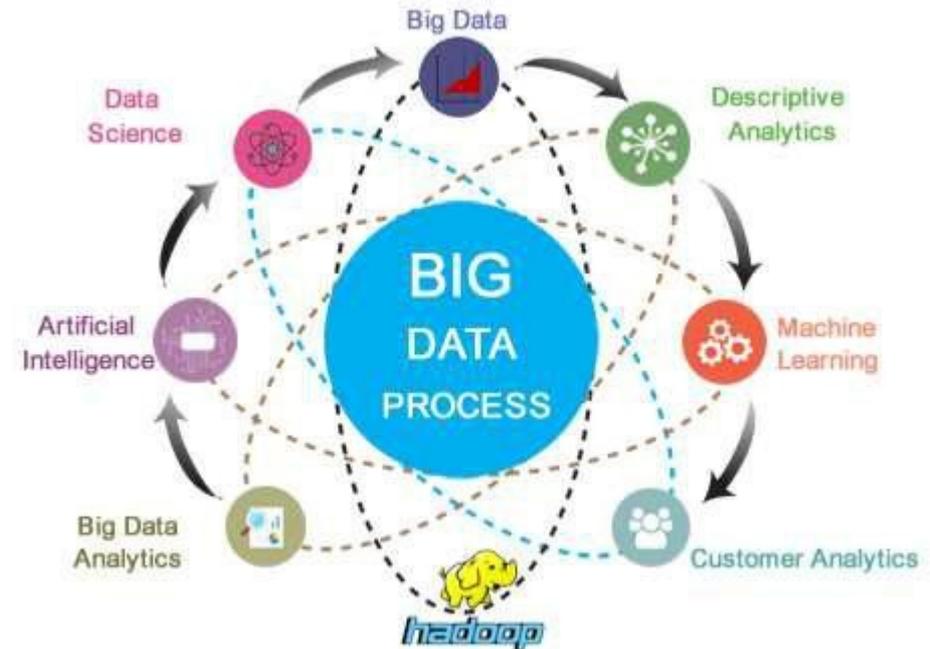
Ein Beispiel: GNU Linux

- **Quelloffenes Betriebssystem**
 - Im Gegensatz zu Windows, OS/X ...
- **Viele Desktop-Derivate**
 - Ubuntu, ArchLinux, Mint, Gentoo, Debian + 1000 andere
- **Vergleichbar mit Windows**
- **Könnt Ihr heute ausprobieren!**



Big Data

- **Wikipedia** «bezeichnet Datenmengen, welche beispielsweise zu groß, zu komplex, zu schnelllebig oder zu schwach strukturiert sind, um sie mit manuellen und herkömmlichen Methoden der Datenverarbeitung auszuwerten.»
- **Informationen werden gespeichert, in der Hoffnung, in Zukunft irgendwas nützliches daraus herauslesen zu können, sie «monetarisieren» zu können.**



Example: Ad-Networks.

- **Ad = Advertisment (dt. Werbung)**
- **Verschlüsselung + Tor: Verbindungen nun «Anonymisiert»**
 - aber Browser immer noch der gleiche.
 - Browserseitige Verfolgung durch das Internet (Tracking)
- **Daten werden monetarisiert (gezielte Werbung)**

Marketing Technology Landscape

August 2011



External Promotion Customer Experience Marketing Management

by Scott Brinker @chiefmartec <http://www.chiefmartec.com>



<p>MARKETING EXPERIENCES</p> <p>Email Marketing</p> <p>Constant Contact, LiveIntent, MailChimp, STRONGVIEW, Bronco, Stream, SMART FOCUS, Zeta, JangoMail, Purvex, Email-Kit, Campaign Monitor, Leadword, Epistol, Experian, CaunSee, rapidmail, MobileKit, Customerio</p> <p>Mobile Marketing</p> <p>airpush, mobility, Taggzy, Vindex, SponsorPay, ShyPud, Nipicket, Edapha, Camnet, Mobitapad, REVIEWS, LeadBlit, mojiva, MARCH EX, mobilematics, vetti, Trumple, Place2, OpenMarket, ePrize, kahuna, waterfall, mobile, VERVE</p> <p>Search & Social Ads</p> <p>AdProof, KENSHO, ADICHEMY, Marin, acquisio, matchcraft, brandnetworks, Acroply, TRIGGIT, ADSPERT, targans, insideVault, SearchForce, niroband, FINCH, sidecar, MAGNE+IC, SHIFT</p> <p>Display Advertising</p> <p>doubleclick, DataXu, bizo, sitespout, BRANDSCREEN, neustar, DATAPEAK, nemining, AdRoll, critico, TruSignal, OpenX, ELITE, Admant, rocketfuel, kwanzoo, bluecove, OPTIMINE, Simplifi, Chango, Taykuy, Adobe</p> <p>Video Ads & Marketing</p> <p>OOVALA, vimeo, brightcove, eyeview, Jivox, BrightRoll, WISTIA, onscreen, pixability, vidjard, vidcaster, spot, vidcasterspot, change, Optimize, studio, SundaySky, YuMe, Kaltura, videoology, mixpo, vidler</p>	<p>Creative & Design</p> <p>fluid, persado, Adobe, STEELHOUSE, XQURE, MockFlow, Campaigner, AdExten</p> <p>Communities & Reviews</p> <p>jive, gigya, Dapsion, jive, NING, livefyre, bazaarvoice, forumee, DISCUS, engage, sociious, chute, satisfaction, communispacer</p> <p>Social Media Marketing</p> <p>SOCIALFLOW, sprinklr, botten, ATTENTION, socialware, engagor, Visible, WILDPIRE, hootsuite, virahkut, shoutlet, sproutsocial, Argyle, awe, SA, TrackMaven, NCAPSE, tapinfluence, moxie, colligent, socialvoit, listenlogic, LITTLE BIRD, extole, Lithium, UNIFIED, synthesis, infegy, CAMPALYST, thestory, spreadfast, UBERAJ, CURALATE, KLOUT, Simply Measured, conversocial, EngageSciences, BuzzBundle, metuwater, Analytica</p> <p>Events & Webinars</p> <p>CITRIX, shub, cisco, Actevite, GUNZA, INXPO, xertevent, InterCal, tmi, implex, touchees, saba, connext, LENOS, WebinarsNow, EventKloud, ReadyTalk</p>	<p>Calls & Call Centers</p> <p>ifbyphone, liveops, twilio, Fiverr, INVOCa, CallRail, callmoo, callfire, response, eGain, CALLSOURCE, (t) mongomosemetrics, calltracking</p> <p>Customer Experience/VoC</p> <p>KANA, MEDALLIA, customerville, VERINT, perceptions, FORETEC, Confirmit, GENESYS, enkata, mindshare, RESPONSETEK, ALLEGIANCE, SATMETRIX, Qualaroo, ALLPERIENCE, uservoice</p> <p>Loyalty & Gamification</p> <p>Badgeville, CROWDTWIST, TIBCO, SOCIALTWIST, loyaltygator, PunchTab, venit, 500friends, AIMIA, REWARDSTREAM, Actionable, BUNCHBALL</p> <p>Personalization</p> <p>evergage, Baynote, insightera, DEMANDBASE, LIVEPERSON, monetate, MOHOLLO, PREDICTA, enecto, SAHURU, choicestream, APTTUS, PERSONYZ, CERTONA, PREDICTIVE EDGE, Nuggets, MAGIQ</p> <p>Testing & Optimization</p> <p>webtrends, maxymiser, Google, Wingify, SITEINSPECT, Optimizely, APT, accenture, Adobe, undounce, atmio, User Testing, Lander, PageMutant, Experiment.ly, GROVHIGIAN, pluralix, userystics, SYNERGENE, SpbW, INSTA PAGE, Vertster, HELIO, CONVERSION, zen, AVENSEO, Tasty, con/vert, KAMELLOON, SparkPage, Marketerizer, VIBETRACE, PAGEWIZ, GlobalMax, IMPRECO, LeadPages</p>	<p>Marketing Apps</p> <p>onwize, hive, SnapApp, offerpop, hentest, woobox, voigo, SurveyMonkey, PollDaddy, NORTH SOCIAL, Fluid, Surveys, snap, surveygizmo</p> <p>SEO</p> <p>BRIGHT EDGE, altruick, sycara, lotusjurm, RANKABOVE, conductor, Wordtracker, AuthorityLabs, Shifts, Raven, seoClarity, colibri, UpCity, bloomreach, web ceo, linkdex, SERPICO, yoast, ANALYTICS, MOZ, SEOyics, searchmetrics, GlnzaMetrics</p> <p>Content Marketing</p> <p>kapost, curata, cadence, Eryls, springcm, DIVVY, Percolate, Skyword, COMPENDIUM, Contently, squeeze, GatherContent, Zemanta, MARKETING.AI, collective, bents, PAPERSHARE, Kontent, RebelMouse, NewsCred, atomic reach, Crowdsource, Intertwint, publishthis, cloudwards, Copyblogger, traps, Oberlo, vorakre, copyblogger, magnify, Starify, Scripted, iriberr</p> <p>Sales Enablement</p> <p>postwire, elastic, Bloomfire, Skalepod, MindMatrix, yesmate, scopos, SKURIA, shoopud, clearslide, Knowledgegate, Allean, UPRAGE, pipedrive, SAVO, Primary Intelligence, Velocity, Upsync, Contactually, pipeline, tappartl</p>	<p>Marketing Data</p> <p>epsilon, ackxiom, Experian, ALLANT, D&B, Salid, 200minio, insideView, EQUIFAX, salesgenie, Infogroup, informatica, OneSource, FACTUAL, ATALINE, datalogix, VisualDNA, salesforce, AccuData, Group, IRI, Lead, Spike, DATASFT, STRATIRON</p> <p>Channel/Local Mktg</p> <p>Firsthouse, sproutcloud, netserve, zift, solution, GorillaTools, eggZack, Channelvity, brandmuscle, Market-ing, Advocate, Nitro, mojo, Balihoo</p> <p>Marketing Resource Mgmt</p> <p>infor, MarcomCentral, soeipic, mitivity, northplains, BrandMaker, Allocadia, DIREXIS, ConceptShare, marketinglucidity, Elateral, Taggsmd, Meta, CO, PAPERFLY, Innovate, Cordeo, SynForce, MarketingPilot, Blacklink</p> <p>Digital Asset Mgmt</p> <p>WIDEN, Bynder, EMC, BELUM, MOSAIC, ADAM, Cognizant, media, AssetBank, WebDAM, DigiEyeZ, Canio, fctouare, REACON, brandwork, Usakulla, ThirdLight</p> <p>Agile & Project Mgmt</p> <p>liquid, PivotTracker, 37signals, clarizen, ATASSIAM, task, Write, sprintly, asana, LeanKit, VERSIONONE, KanbanFlow, HOMEBASE, Flow, kanbanery, stelerik, smartsheet, gannter, mindjet, Scrumwise</p>	<p>MARKETING OPERATIONS</p> <p>Marketing Analytics</p> <p>BECKON, collective, Adometry, Visual, PivotLink, ThinkVine, nielsen, jento, convero, MarketShare, Angoss, comscore, marketing, iSpot, ACE, biScience, MOAT, measureful</p> <p>Dashboards</p> <p>Dundas, chartio, Logi, R, Dashboards, sweetspot, GLECKBOARD, LEFTRONIC</p> <p>Web & Mobile Analytics</p> <p>Google, CLIC, TALENT, Adobe, KISSmetrics, crazyegg, IBM, webtrends, compete, ServiceTick, EVIDON, spring, MOZ, inspecter, mouseflow, Kontagent, mixpanel, billy, Clickdensity, Localytics, GoSquared, cebrus</p> <p>Business Intelligence</p> <p>pentaho, atterx, ORACLE, Information, QlikView, SAP, METRIC INSIGHTS, MicroStrategy, GoodData, jeda, BITAM, SAS, Predictix, ACTUATE, TIBCO, enstrink, TARGET, PANORAMA, SOOQA, REVOLUTION, THINKMAP, JASPER, boary, Entalysis, Yellowfin</p>
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<p>Data Management Platforms/Customer Data Platforms</p> <p>bluekai, exelate, optimove, LOTAME, PARIO, LYTICS, TURM, Futurelytics, REACHFORCE, Fabric, krux, ak, RedPoint, infer, Windex, Xaxis, AGILONE, Knofice, core, audience</p>	<p>Tag Management</p> <p>DC Storm, ValueClick, Google, enighten, Impact Radius, Tealium, Man, Qubit</p>	<p>User Mgmt</p> <p>GIGYA, janrain, LoginRadius, OpenID, oneall</p>	<p>Cloud Connectors</p> <p>snaplogic, Jitterbit, keyv, elastic, Jitterbit, zapier, import, OneSaaS, MuleSoft, ADEPTIA</p>	<p>APIs</p> <p>LAYER, apigee, 3Scale, WRETRY</p>
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<p>CRM</p> <p>ORACLE, Microsoft, Nutshell, insightly, NETSUITE, nimble, CLEAR, salesforce, ONO, Batchbook, Relatedo, MEDACORE, SUGARCRM, TALISM, CAPILLARY, Pega, fullcircle, Steelwedge, OnePageCRM, saleslogix, SAGE, SAP, Highrise, cosule, LOGICBOX</p>	<p>Marketing Automation / Integrated Marketing</p> <p>TERADATA, IBM, Viz, pardot, salesfusion, SAS, action, ExactTarget, HubSpot, leadspaced, Salesformics, NetResults, ONTRAPORT, ORACLE, Infusionsoft, RightWave, ClickSquared, INBOX25, CallidusCloud, SIGNPOST, vwhatnext, vocus, RBRTR, Sharpspring, Speccate, lyris, hatcheduck, signal, target, 360, integrate, etique, loopfuse, Intercom, RIGHTON, Bislr, HubSpot, LeadLander, Venntive, genius, INBOX25, CallidusCloud, SIGNPOST</p>	<p>Web Site / WCM / WEM</p> <p>Aktron, SDL, ACQUIA, dynamicWEB, OPENTEXT, e-Spirit, atex, IBM, CORENET, BIZ, INGENIUX, WIX, EPISERVER, elcom, hp, Kentico, weebly, sitecore, ORACLE, censehare, AGILITY, dotCMS, percussion</p>	<p>E-commerce</p> <p>INTERSHOP, ZOovy, IBM, shopify, elasticpath, WOO, demanware, Bigcommerce, COMMERCE, avanate, hybrid, node, deserbridge, spree, mozo, ULTRACART, Goodies, nimblecommerce, ebay, enterprise, Digital River, ORACLE, Venda</p>
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<p>INFRA-STRUCTURE</p> <p>Databases</p> <p>ORACLE, HBASE, PostgreSQL, MySQL, Microsoft, HYPERBASE, MarkLogic, amazon, Cassandra, mongoDB</p> <p>Big Data</p> <p>cloudera, TERADATA, software, splunk, EMC, Zettaset, Hortonworks, data, BitViva, IBM, Pivotal, DATASTAX, MAER</p> <p>Cloud</p> <p>Google, rackspace, Amazon, Heroku, SCALR, radware, maxon, Akamai, DigitalOcean, RIGHT SCALE, Amazon, Microsoft, BIG5, PAGES, Verizon</p> <p>Mobile App Dev</p> <p>Google, Microsoft, Apsalar, Parse, Xamarin, netbiscuits, IBM, kony, swive</p> <p>Web Dev</p> <p>django, jQuery, PHP, python, JavaScript, CH, stackoverflow, Bootstrap</p> <p>Marketing Environment</p> <p>Google, Microsoft, ebay, VINE, facebook, LinkedIn, pinterest, yelp, reddit, twitter, YAHOO!, Pinterest, YouTube, amazon.com, Yahoo!, Indigo, ammyspace</p>

Advertising & Promotion

Mobile Marketing
Mobile Apps
Video Marketing
Interactive Content

Display & Programmatic Advertising
Search & Social Advertising
Native/Content Advertising
Video Advertising

Print
PR

Print
PR

Content & Experience

Content Marketing
Optimization

DAM & MRM
SEO
Marketing Automation & Campaign/Lead Management

Marketing Automation & Campaign/Lead Management

CMS & Web Experience Management

Social & Relationships

Call Analytics & Management
Events, Meetings & Webinars
Social Media Marketing & Monitoring

Advocacy & Referrals
Feedback & Chat
Community & Reviews

Experience, Service & Success
CRM

CRM

Commerce & Sales

Retail & Proximity Marketing
Channel, Partner & Local Marketing
Sales Automation, Enablement & Intelligence

Affiliate Marketing & Management
Ecommerce Marketing

Ecommerce Marketing
Ecommerce Platforms & Carts

Ecommerce Platforms & Carts

Data

Audience/Market Data & Data Enhancement
Marketing Analytics, Performance & Attribution

Mobile & Web Analytics
Reports & Data Visualization

Business/Customer Intelligence & Data Science
iPaaS, Cloud/Data Integration & Tag Management

DMP
Predictive Analytics
Customer Data Platforms

Management

Talent Management
Product Mgmt

Budgeting & Finance
Collaboration

Projects & Workflow
Agile & Lean Mgmt

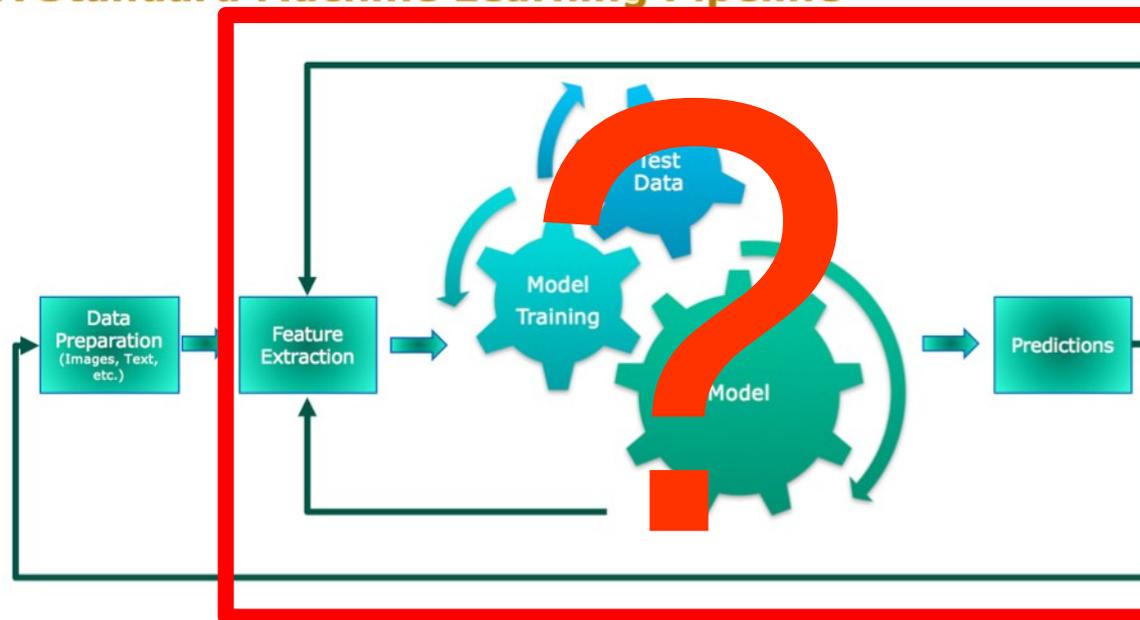
Vendor Analysis
Customer Data Platforms

MARTEC 5000

Automatisierung: Maschinelles Lernen

- Benutze «Daten» (bereits gemachte Erfahrungen) um neue Verhaltensweisen vorauszusagen

A Standard Machine Learning Pipeline



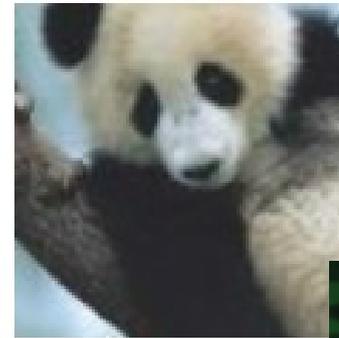
Automatisierung: Verwirrung des Mechanismus



+ .007 ×



=



“panda”
57.7% confidence

“gibbon”
99.3 % confidence

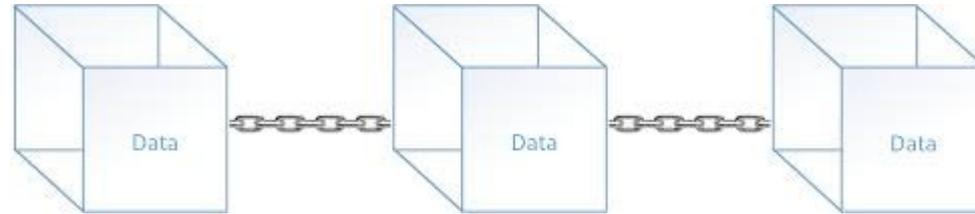


Vertrauen?

- **«Jeder macht sowieso, was er will!»**
 - Wie vertrauen?
- **Wir wollen:**
 - Dezentralisiert
 - Schwer zu kontrollieren durch Einzelne
 - Automatisiert

Hype-Example: Blockchains

- **Verteilte Datenbank mit Einträge-Garantie**



- **Use Case: Verteilte Währungen (z.B. Bitcoin)**
- **Nicht nur Datenbank-Einträge, auch Verträge**
 - «Smart Contracts»

Jetzt: Miniworkshops und Fragestunde

- **Zusammenfassung: Komplexes Thema auf vielen Ebenen, wo man überall aufpassen muss!**
- **Verteilt euch!**