

### **Bachelorthesis**

Titel der Abschlussarbeit

zur Erlangung des akademischen Grades

Bachelor of Science

eingereicht im Fachbereich Mathematik, Naturwissenschaften und Informatik an der Technische Hochschule Mittelhessen

von

Dieudonne Timma Meyatchie

24. Oktober 2013

Referent: Prof. Dr. Peter Kneisel

Korreferent: Herr Dennis Priefer

## Erklärung der Selbstständigkeit

Hiermit versichere ich, die vorliegende Arbeit selbstständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt sowie die Zitate deutlich kenntlich gemacht zu haben.

Gießen, den 24. Oktober 2013

Dieudonne Timma Meyatchie

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

## Inhaltsverzeichnis

T	Einfuhrung	3
	1.1 Motivation	3
	1.2 Problembeschreibung	4
	1.3 Ziele dieser Arbeit	4
	1.4 Abgrenzung	4
	1.5 Vorgehensweise	4
	1.6 Struktur der Arbeit	4
2	Hintergrund	5
3	Konzept	7
4	Realisierung	ç
5	Zusammenfassung	11
	5.1 Fazit	11
	5.2 Auswertung	11
	5.3 Weitere Ansätze	11
	5.4 Nächste Schritte	11
	5.5 Ausblick	11
Lit	eraturverzeichnis	13
Αb	kürzungsverzeichnis	14
Αb	bildungsverzeichnis	15
Та	bellenverzeichnis	17
Lis	tings	19
Α	Anhang 1	21
В	Anhang 2	35

## 1 Einführung

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum [Cic02]

### 1.1 Motivation

Et harum quidem rerum facilis est et expedita distinctio. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere possimus, omnis voluptas assumenda est, omnis dolor repellendus.

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo inventore veritatis et quasi architecto beatae vitae dicta sunt explicabo. Nemo enim ipsam voluptatem quia voluptas sit aspernatur aut odit aut fugit, sed quia consequuntur magni dolores eos qui ratione voluptatem sequi nesciunt.

- 1.2 Problembeschreibung
- 1.3 Ziele dieser Arbeit
- 1.4 Abgrenzung
- 1.5 Vorgehensweise
- 1.6 Struktur der Arbeit

# 2 Hintergrund

# 3 Konzept

# 4 Realisierung

# 5 Zusammenfassung

- 5.1 Fazit
- 5.2 Auswertung
- 5.3 Weitere Ansätze
- 5.4 Nächste Schritte
- 5.5 Ausblick

## Literaturverzeichnis

# Abbildungsverzeichnis

## **Tabellenverzeichnis**

A.1	Link Type Options	21
A.2	Page Display Options	21
A.3	Metadata Options	22
A.4	ArticleSettingtype	23
A.5	OptionSettingtype	23
A.6	MaxlevelSettingtype	23
A.7	Integration Options	23
A.8	Blog Layout Options	24
A.9	Categories Options	24
A.10	Category Options	25
A.11	List Layout Options	26
A.12	Ordering and Pagination Options	27
A.13	Article Settings Options	28

# Listings

.

## A Anhang 1

### Menu

### Page

In der Untersuchung von MenuItems in Joomla stellen wir fest, dass es verschiedene Page Type existiert, die dieselbe Elementen enthalten. Diese Elemente kommen zwar nicht in allen Items, aber so oft genug , damit wir sie eine extra Entität "Menuentry options" der Grammmatik widmen. Sie besteht aus selbst den Entitäten "Link type Options", "Page Display Options", "Metadata Options". Ihre Abbildungen sehen folgenden aus:

CJSL	JOOMLA
• Link Title Attribute	• menu-anchor_title
• Link CSS Style	• menu-anchor_css
• Link Image	• menu_image
• Add Menu Title	• menu_text
- no  yes	- 0  1

Tabelle A.1: Link Type Options

CJSL	JOOMLA
Browser Page Title     Show Page Heading      - no  yes	<ul><li>page_title</li><li>show_page_heading</li><li> - 0  1</li></ul>
<ul><li> Page Heading</li><li> Page Class</li></ul>	<ul><li>page_heading</li><li>pageclass_sfx</li></ul>

Tabelle A.2: Page Display Options

CJSL	JOOMLA
<ul> <li>Meta Description</li> <li>Meta Keywords</li> <li>Robots <ul> <li>use global</li> <li>index, follow</li> <li>noindex, follow</li> <li>index, nofollow</li> </ul> </li> <li>noindex, nofollow</li> </ul>	<ul> <li>menu-meta_description</li> <li>menu-meta_keywords</li> <li>robots <ul> <li>Leer</li> <li>index,follow</li> <li>noindex, follow</li> <li>index,nofollow</li> </ul> </li> <li>noindex,nofollow</li> </ul>
• Secure - off  on  ignore	• secure1  1  0

Tabelle A.3: Metadata Options

### Articelpage

In dem Contianer CJSL\_Articlepage enthält verschiene Entitäten, die im Joomla Menuitem Type darstellen:

- Archived Articles
- Single Article
- List All Categories
- Category Blog
- Category List
- Featured Articles
- Create Article

Sie besitzen nicht nur die obengenannte Itemoptions gemeinsam, sondern auch verschiedene Entitäten, die nur bei Article Page vorkommen:

- Category Options
- Categories Options

- Blog Layout Options
- Ordering and Pagination Options
- Article Layout Options
- Integrations Options
- ArticleSettingtype
- OptionSettingtype
- MaxLevel Setting

Hier haben wir die Abbildung von den obengenannten Elemente: Die ArticleSettingtype -> ArticleStettingvalue, die ArticleOptiontype -> ArticleOptionvalue, und optionSettingtype -> optionSettingValue

CSL	Joomla
use global	leer
use article setting	use-article
hide	0
show	1

Tabelle A.4: ArticleSettingtype

CSL	Joomla
use global	leer
hide	0
show	1

Tabelle A.5: OptionSettingtype

CSL	Joomla
use global	leer
all	-1
none	0
1-5	1-5

Tabelle A.6:
MaxlevelSettingtype

CSL	Joomla
Show Feed Link      - OptionSettingtype     For each feed item show      - use global      - intro text      - full text	<ul> <li>show_feed_link</li> <li> - OptionSettingvalue</li> <li>feed_summary</li> <li> - leer</li> <li> - 0</li> <li> - 1</li> </ul>

Tabelle A.7: Integration Options

CSL	Joomla
• Leading Articles	• num_leading_articles
• Intro Articles	• num_intro_articles
• Columns	• num_columns
• Links	• num_links
Multi Column Order	• multi_column_order
- use global	- leer  0  1
down   across	

Tabelle A.8: Blog Layout Options

CSL	Joomla
<ul> <li>Show Top Level Category Description</li> <li>OptionSettingtype</li> <li>Subcategory Levels</li> <li>MaxlevelSettingtype</li> <li>Empty Categories</li> </ul>	<ul> <li>show_base_description</li> <li>OptionSettingvalue</li> <li>maxLevelcat</li> <li>MaxlevelSettingvalue</li> <li>show_empty_categories_cat</li> </ul>
<ul> <li>Empty Categories</li> <li>OptionSettingtype</li> <li>Subcategories Descriptions</li> <li>OptionSettingtype</li> <li>Articles in Category</li> </ul>	<ul> <li>show_empty_categories_cat</li> <li>OptionSettingvalue</li> <li>show_subcat_desc_cat</li> <li>OptionSettingvalue</li> <li>show_cat_num_articles_cat</li> </ul>
- OptionSettingtype	- OptionSettingvalue

Tabelle A.9: Categories Options

CSL	Joomla
• Category Title	• show_category_title
- OptionSettingtype	- OptionSettingvalue
• Category Description	• show_description
- OptionSettingtype	- OptionSettingvalue
Category Image  Ontion Settingtune	• show_description_image
- OptionSettingtype	- OptionSettingvalue
• Subcategory Levels	• maxLevel
- OptionSettingtype	- OptionSettingvalue
• Empty Categories	• show_empty_categories
- OptionSettingtype	- OptionSettingvalue
No Articles Message	• show_no_articles
- OptionSettingtype	- OptionSettingvalue
• Subcategories Descriptions	• show_subcat_desc
- OptionSettingtype	- OptionSettingvalue
Articles in Category	• show_cat_num_articles
- OptionSettingtype	- OptionSettingvalue

Tabelle A.10: Category Options

CSL	Joomla
<ul> <li>Display Select <ul> <li>OptionSettingtype</li> </ul> </li> <li>Filter Field <ul> <li>OptionSettingtype</li> </ul> </li> <li>Table Headings <ul> <li>OptionSettingtype</li> </ul> </li> <li>Show Date</li> </ul>	<ul> <li>show_pagination_limit</li> <li>OptionSettingvalue</li> <li>filter_field</li> <li>OptionSettingvalue</li> <li>show_headings</li> <li>OptionSettingvalue</li> <li>list_show_date</li> </ul>
<ul> <li>OptionSettingtype</li> <li>Date Format</li> <li>Show Hits in List <ul> <li>OptionSettingtype</li> </ul> </li> <li>Show Author in List <ul> <li>OptionSettingtype</li> </ul> </li> </ul>	<ul> <li>OptionSettingvalue</li> <li>date_format</li> <li>list_show_hits <ul> <li>OptionSettingvalue</li> </ul> </li> <li>list_show_author</li> <li>OptionSettingvalue</li> </ul>

Tabelle A.11: List Layout Options

CSL	Joomla
Category Order	• orderby_pri
- Use Global   No order	- leer*   none
- Title Alphabetial	- alpha
- Title Reverse Alphabetical	- ralpha
- Category Manager Order	- order
Article Order	• orderby_sec
- Use Global	- leer*
- Featured Article Order	- front
- Most Recent First	- rdate
- Oldest first	- date
- Title Alphabetical	- alpha
- Title Reverse Alphabetical	- ralpha
- Author Alphabetical	- author
- Author Alphabetical Reverse	- rauthor
- Most Hits	- hits
- Leasts Hits	- rhits
- Article Manager Order	- order
Date for Ordering	• order_date
- use global  created  modified  published	- leer   created   modified   published
• Pagination	• show_pagination
- use global hide  show auto	- leer   0   1   2
• Pagination Results	• show_pagination_results
- use global  hide  show	- leer   0   1

**Tabelle A.12:** Ordering and Pagination Options

CSL	Joomla
• Show Title	• show_title
- ArticleSettingtype	- ArticleSettingvalue
• Link Titles*	• link_titles*
• Show Intro*	• show_intro*
• Show Category*	• show_category*
• Link Category*	• link_category*
• Show Parent Category*	• show_parent_category*
• Link parent category*	• link_parent_category*
• Show Author*	• show_author*
• Link Author*	• link_author*
• Show create Date*	• show_create_date*
• Show Modify Date*	• show_modify_date*
• Show Publish Date*	• show_publish_date*
• Show Item Navigation*	• show_item_navigation*
• Show Vote*	• show_vote*
• Show Readmore*	• show_readmore*
• Show Readmore Title*	• show_readmore_title*
• Show Icons*	• show_icons*
• Show Print Icon*	• show_print_icon*
• Show Email Icon*	• show_email_icon*
• Show Hits*	• show_hits*
• Show Unauthorised Links*	• show_noauth*

Tabelle A.13: Article Settings Options

 $<sup>\ ^*</sup>$ bedeudet, dass der Element Article Settingtype B.z<br/> Aticle Settingvalue als Parameter hat.

CJSL	JOOMLA
1- List all Categories	.List all Categories
• Basic Setting	• Required Setting
- Select a Category	- featured_categories
• Categories Options	• Categories Options
+ Top Level Category Description	+ categories_description
• Category Options	• Category Options
• Blog Layout Options	Blog Layout Options
+ Include Subcategories	+ show_subcategory_content
- MaxlevelSettingType	- MaxlevelSettingvalue
Ordering and Pagination Options	Ordering and Pagination Options
• List Layout Options	• List Layout Options
+ Articles to List	+ display_num
- 5 bis 100   all	- 5 bis 100   0
Artikel Layout Options	Artikel Layout Options
• Integration Options	• Integration Options
Menuentry Options	Menuitem Options
2- Archived Article	2- Archived Article
Basic Setting	• Required Setting
- Article Order (A.12)	- orderby_sec (A.12)
- Date for Ordering (A.12)	- order_date (A.12)
- Articles to List (A.11)	- display_num (A.11)
- Filter Field (A.11)	- filter_field (A.11)
- Intro text Limit	- introtext_limit
• Artikel Layout Options	Artikel Layout Options
Menuentry Options	Menuitem Options

CJSL	JOOMLA
4- Featured Articles	4- Featured Articles
• Required Setting	• Required Setting
- Select Categories	- featured_categories
	- layout_type
• Blog Layout Options	• Blog Layout Options
• Ordering and Pagination Options	• Ordering and Pagination Options
• Artikel Layout Options	• Artikel Layout Options
• Integration Options	• Integration Options
• Menuentry Options	• Menuitem Options
5-Category Blog Article	5- Category Blog Article
• Basic Setting	• Basic Setting
- Select Categories	- featured_categories
	- layout_type
• Category Options	• Category Options
+ Show Subcategories Text	+ show_category_heading_title_text
- OptionSettingsType	- OptionSettingsValue
+ Page Subheading	+ page_subheading
• Blog Layout Options	• Blog Layout Options
+ Include Subcategories	+ show_subcategory_content
- MaxlevelSettingType	- MaxlevelSettingValue
• Ordering and Pagination Options	• Ordering and Pagination Options
• Artikel Layout Options	• Artikel Layout Options
• Integration Options	• Integration Options
• Menuentry Options	• Menuitem Options

CJSL	JOOMLA
6-Category List Articles	6-Category List Articles
• Basic Setting	Basic Setting
- Featured Categories	- featured_categories
• Category Options	• Category Options
+ Show Category heading Title	+ show_category_heading_title_text
- OptionSettingsType	- OptionSettingsValue
+ Page Subheading	+ page_subheading
• List Layout Options	• List Layout Options
+ Articles to List	+ display_num
- 5 bis 100   0	- 5 bis 100   0
• Ordering and Pagination Options	Ordering and Pagination Options
• Artikel Layout Options	Artikel Layout Options
• Integration Options	• Integration Options
• Menuentry Options	• Menuitem Options
7-Create Article	7-Create Article
• Basic Setting	• Basic Setting
- Default category	- enable_category
- Choose a category	- catid
• Menuentry Options	Menuitem Options
3-Single Article	3-Single Article
• Basic Setting	• Required Setting
- Select Article	- id
• Artikel Layout Options	Artikel Layout Options
• Integration Options	• Integration Options
• Menuentry Options	Menuitem Options

### UserPage

Der Container USerpage besteht aus verschiedene Entitäten, die sich um die Darstellung des User widmen:

- Login Form
- User Profile
- Edit User Profile
- Registration Form
- Username Reminder Request
- Password Reset

CJSL	JOOMLA
1- Login Form	1- Login Form
• Basic Options	Basic Options
- Login Redirect	- login_redirect_url
- Login Description	- logindescription_show
- hide  show	- 0   1
- Login Description Text	- login_description
- Login Image	- login_image
- Logout Redirect	- logout_redirect_url
- Logout Text	- logoutdescription_show
- hide   show	- 0   1
- Logout Description Text	- logout_description
- Logout image	- logout_image
• Menuentry Options	• Menuitem Options
2- Login Form	2- Login Form
• Menuentry Options	Menuitem Options
3- User Profile	3-User Profile
• Menuentry Options	Menuitem Options
4- Edit User Profile	4-Edit User Profile
• Menuentry Options	Menuitem Options
5-Registration Form	5-Registration Form
• Menuentry Options	Menuitem Options
6-Username Reminder Request	6-Username Reminder Request
• Menuentry Options	Menuitem Options
7-Password Reset	7-Password Reset
• Menuentry Options	Menuitem Options

admin

# B Anhang 2