

# Personalized Content: Rules, Visitors and Personas

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# Agenda

Welcome and Introduction

What is Personalization?

Purpose and Use Cases

Personalization Features in dotCMS

Implementation Approaches

Summary and Questions



# Welcome and Introduction



# Personalization Features

New Personalization features in  
dotCMS 3.5 and above

Rules

Personas

Visitors

Personalized Content Pulls

# Enables Targeting and Customization

You can choose to deliver different content to different users, to better meet the needs of both your users and your organization.



# Easy to Implement

Personalization can get complex, but it doesn't have to.

Depending on how your existing site is set up, you may begin implementing personalization with **as little work as changing a single Velocity call**



# Highly Scalable

Multiple personalization methods are available.

The different methods are scalable from single Pages or Widgets to entire Sites.



# What is Personalization?





# Displaying different *content* to different *users*

based on...

- **User behavior**, such as:
  - The user's browsing habits on your site
  - The number of previous visits to your site
- **User characteristics**, such as:
  - Geolocation
  - Language preferences
  - User Agent or Device Information
  - Referring Site
- ***Expected* user preferences**
  - Based on an assigned **Persona**

# Requirements

## The Basics:

1. **Identify differences** in individual users.
2. **Make decisions** about what content to display.

# Purpose and Use Cases



# Display content users are most interested in

Better meet user needs

Products

Blog Articles

Events

News

Data from external feeds

# Target specific information to specific users

Better meet organizational needs

Products

Promotions

Announcements

Limited Access Content

# Show or hide information

Tailor the user experience, and  
allow it to change over time

User experience level

User location

User industry or role

# Personalization Features



# Rules

If (some conditions are met)  
Then (take some actions)

A Rule consists of:

- One or more **Conditions**
- One or more **Actions**
- A **Firing Condition** (trigger) based on different user actions

Rules can be tied to an entire **Site** or to an individual **Page**



# Personas

User “types” or “roles”

- **Explicitly assigned** to users
  - via Rules or your Velocity code
- Contain *descriptive* information
  - Only for internal use
- Contain **Key Tags**
  - Used to match content with specific Personas
- Contain **Content Tags**
  - Used to match Personas with content appropriate for the Persona
- Offer some unique features:
  - Personas are **Content**
  - You can view any Page on your site **as a specific Persona**

# Visitors

Collected user information

**Tracked internally** on the server.

Some of the **information collected**:

- Location Information:
  - Locale
  - Selected Language
  - Geolocation (Latitude and Longitude)
- Assigned Persona
- Accrued (Collected) Tags
- User Agent and Device Information
- Referrer
- Number of Times Visited
- 

Visitor information can be accessed via **Rules** and **Velocity code**.

# Personalized Content Pulls

`$dotcontent.pullPersonalized()`

Automatically pull and **sort** content based on information in the **Visitor object**

Can still be customized via the supplied **query** and a **secondary sort criteria**

Can be used as a “**drop-in**” **replacement** for many existing content pulls

# Implementation Approaches



# Method 1: Fast and Easy

Replace existing content pulls  
with personalized pulls

1. **Add Tag fields** to your Content Types.
2. **Populate your content** with Tags.
3. Replace `$dotcontent.pull()` or `$dotcontent.pullPerPage()` calls with `$dotcontent.pullPersonalized()`.
4. **Note:**
5. If your Content Types already have populated Tag fields, skip steps 1 and 2.

## `$dotcontent.pullPersonalized`

If your Content Types already have populated **Tag** fields, you can skip steps 1 and 2.

This means all you have to do to implement basic Personalization is change your existing content pulls to use `$dotcontent.pullPersonalized()` instead.



# Method 2: Implement Rules

Set conditions and actions to  
change the look and/or behavior  
of individual Pages  
or entire Sites

1. **Implement Rules for 1 page**  
For example, begin by implementing Rules for a Promotions page, to present different Promotions to users in different regions.
2. **Scale the implementation 1 page at a time**  
Add Rules to other pages as appropriate.
3. **Implement Site Rules**  
if or when appropriate.

# Method 3: Implement Personas

Select content to display for  
different types of users

## Basic Steps:

1. **Define** your Personas
2. **Create Rules** which assign Personas to users based on specific user behavior
  1. For example, visiting certain pages, clicking on certain types of content, etc.
3. **Modify your pages and content pulls**

Display different content or perform different queries based on the **assigned Persona** of the user.



# Method 3: Implement Personas

Select content to display for  
different types of users

## Optional Additional Steps:

### 4. Add tags to your Personas

Persona Tags correspond to tag values in content that those Personas would be interested in.

### 5. Add Persona Key Tags to your content items

Link content to specific Personas that would be especially interested in that content.

### 6. Use `$dotcontent.pullPersonalized()` in place of other content pulls.

Deliver content which is targeted to each visitor's assigned Persona.

# Method 4: Customization

Personalize content and content pulls using your own criteria

1. Combine Rules, Personas, and `pullPersonalized()` to create custom personalization.
2. Change the weighting applied for `$dotcontent.pullPersonalized()`.

`PULLPERSONALIZED_PERSONA_WEIGHT=100`

3. Implement your own personalized content pull.

<http://dotcms.com/docs/latest/pull-personalized-content#CustomPersonalizedPull>

4. Use custom Velocity code to directly access the Visitor object.

# Example: Customized Personalized Content Pull

```
#set($maxBoost = 10)
```

```
#if($visitor.accruedTags.size() > 0)
  #set($parsedTag, $visitor.accruedTags[0].split(":"))
  #set($tagCount = 0)
  $tagCount.parseInt($parsedTag[1])
  #set($maxBoost = $maxBoost + $tagCount)
#end
```

```
#if($visitor.persona.size > 0)
  #set($query = $query + " tags:" + $visitor.persona.keyTag.toLowerCase() + "*^" + $maxBoost)
#end
```

```
#if($visitor.accruedTags.size() > 0)
  #foreach($tag in $visitor.accruedTags)
    #set($parsedTag, $tag.split(":"))
    #set($tagCount = 0)
    $tagCount.parseInt($parsedTag[1])
    #set($tagCount = $tagCount + 1)
    #set($query = $query + " tags:" + $parsedTag[0].toLowerCase() + "*^" + $tagCount)
  #end
#end
```



# Summary and Questions



- Enables *Targeted* and *Customized* Content
- Multiple Implementation Methods
  - Choose the method that makes the most sense for your Site(s).
- Easy to Implement
  - Simplest method requires changing only a single word of code.
- Highly Scalable
  - Start with a single page or widget and expand as needed.
  - Start with simple methods and add more sophisticated methods over time.
  - Implement on multiple levels, from individual Pages, to content pulls, to entire Sites.



# Resources

## Documentation Links

<http://dotcms.com/docs/latest/rules>

<http://dotcms.com/docs/latest/personas>

<http://dotcms.com/docs/latest/visitors>

<http://dotcms.com/docs/latest/pull-personalized-content>

<http://dotcms.com/docs/latest/condition-types>

<http://dotcms.com/docs/latest/actions>

<http://dotcms.com/docs/latest/pull-personalized-content#CustomPersonalizedPull>

## dotCMS Starter Site / <http://demo.dotcms.com>

News Listing:

- **Front-End Page Link:** <http://demo.dotcms.com/news-events/news/>
- **Content Type:** News Listing
- **VTL File:** /application/vtl/widgets/news/personalized-news-listing.vtl

