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## **Video as a learning tool**

Creating a tutorial for Magento

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## ABSTRACT

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This thesis covers the process of creating a video tutorial series teaching how to install and use the e-commerce content management system Magento. Thesis also has a developmental look into using video material as a learning tool and what it brings to modern teaching. The tutorial series focuses on teaching the learner how to set up a basic web store and how to personalize it with the tools featured in Magento.

The aim of the tutorial is to teach the subject to understand the possibilities that Magento offers and how to implement them. The tutorial teaches creating a category and a product as well as how to set up shipping and payment options for that product. Personalization tool covered are changing and editing a theme and using CMS static blocks and widgets.

Theoretical part of the thesis looks into using video material as a learning tool. The research looks at the advantages and disadvantages that video lectures and tutorials bring to studying. Video will be looked at from a pedagogical angle and what it brings to teaching, with a deeper look into using video in the flipped classroom teaching method.

The thesis will be used as teaching material to support future courses at the Oulu University of Applied sciences. Option for learning of Magento is being introduced to the curriculum in the fall of 2015.

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Keywords: e-commerce, tutorial, video, Magento, web store

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# 1 INTRODUCTION

Means of teaching and studying are changing. Especially in the field of IT which is always evolving, the traditional class room teaching is starting to fade away. Different forms of online courses and self study courses are replacing the traditional school teaching methods. These tools bring up possibilities for distance learning and have created the flipped classroom way of studying, in which you prepare for your lectures or contact with the teacher beforehand by getting introduced to the material with videos. All this is mainly due to the rapid growth of the Internet and the tools and platforms it offers.

The most popular and used way of learning new skills online is through online video tutorials. There are millions and millions upon tutorials online. Youtube alone gives about 55 million hits on the search "Video Tutorial" (Searched 19.3.2015). These tutorials show are especially popular with different IT programs and programming skills. The simplicity and availability of easy and high quality screen capture programs means that anyone can create a video tutorial displaying their knowledge and skills.

This thesis is a research for the Oulu University of Applied Sciences (OUAS). The goal is to create a set of tutorial videos for the content management system (CMS) Magento. Magento is the most widely used and popular e-commerce CMS system in the world (Datanyze 2015, cited 20.4.2015). The popularity and availability are the main reason Magento is being introduced to the OUAS curriculum. Topic for the thesis is credited to Mrs. Sinikka Suutari, an OUAS lecturer who informed that teaching Magento would be introduced to the school curriculum. This tutorial video set will concentrate on teaching the basic functions operations used with Magento. These should provide the students with the skills to build and manage a simple webs store. The end product will be 9, approximately 10-12 minute videos each designed to teach a simple function of Magento in clear instructions in English. There will also be a written step-by-step tutorial to support the videos.

Management and development of web content such as web stores is an important part of the school Degree Programme in Information Business Technology. At the moment the curriculum includes teaching of web stores using another CMS system Wordpress. Both Wordpress and Magento can be used as an e-commerce platform. Magento is specifically designed to manage a

web store, whereas Wordpress requires third party plugins to support basic e-commerce functionalities (Demac Media 2013, cited 19.4.2015.) Personally I was presented with the opportunity to learn how to use Magento during my professional training at a British company called Tower Health. Working there as e-commerce assistant provided me with the opportunity to learn and work with all the basic parts of Magento. With this addition of Magento to the curriculum OUAS wants to present a more wide selection and understanding of CMS systems beyond just Wordpress.

The topics for the videos are chosen by me and my supervising lecturer Jouni Juntunen. Topics are chosen to build a comprehensive learning structure for the student to learn the basic necessities to run a simple web store. The tutorial topics will include introduction and installation of Magento, along with building simple product categories and products to those categories. The exact topics for the tutorial are as follows:

1. Install Magento (Part 1 & 2)
2. Introduction to Magento
3. Creating a new product category
4. Creating a new product
5. Shipping and Payment
6. Introduction to CMS blocks and widgets
7. Installing a new theme
8. Editing a theme

The videos are recorded using Windows Media Encoder to screen capture the process taught in the video. Due to its availability and the program being free Windows Media Encoder was deemed suitable for this project. For some of the tutorial videos that require editing Windows Movie Maker is used, it was selected for similar availability and cost reasons as Media Encoder. Commentary will be provided along with the screen capture to support the teaching in the video. Language used on commentary will be English to support OUAS international students and degree programmes. The videos will be published on the OUAS Youtube account to be used as teaching material in future courses.

Along the way of creating this tutorial the goal of the project is to research into use of videos as a learning tool. How does the online video tutorial compare to traditional lecture form and what benefits and downsides it has. The aim is to use everything learned in the research to support the quality of the videos made during this project.

At the end of the thesis a full nine part video tutorial was created based on the topics planned. Tutorial instructs learner in creating a simple functioning web store. With approval of the instructor Mr. Jouni Juntunen the material, will be released on the OUAS Youtube account.

## 2 MAGENTO

### 2.1 Basics of Magento

Magento is an e-commerce content management web application or in simple terms a web based program to manage and run online stores. It was originally launched in 2008 after being developed by a company called Varien and the latest version that is used in this project was released in November of 2014 and the version is 1.9.1.0. Magento is currently owned by eBay Enterprise.

Magento has two different versions of itself. The first is the Community Edition which is free and is the one used in this thesis. Second is Enterprise edition which directed at larger corporations and costs approximately 15 000 US dollars a year so it was not deemed reasonable for a student project. Main advantages that the Enterprise edition has is with Magento Developer support which is available at all times when the Community Edition has no access to this service (Logic solutions 2015, cited 15.4.2015.)

As Magento uses source code it is open to be edited by anyone gives Magento great flexibility and lots of customizable features. Magento's license states "Magento Community Edition is distributed under the Open Software License (OSL 3.0), and is thus open source software. You may download, modify, use, and distribute the open source Software" (Magento 2015, cited 4.5.2015). These licenses give the user the possibility to add features freely and allow the web sites created to be personal as wanted. Also fixes are often easier to make as you do not need to wait for an official fix update. Downside to these is that these fixes require a lot of skills and time to fix and edit them. Still the possibility of a quick turnaround on a fix is very beneficial especially in information security if there is problems in a security of a patch a fast fix is needed (Laakso 2014, 20.) Magento offers an open forum on their web site with thousands of posts on different subjects including updates, version differences and extensions. Many of these posts are also offered in multiple languages. There are also dozens of independent forum sites with help on Magento.

Magento is one the most popular e-commerce platforms in the world. According to research by Alexa approximately 26% of the world's top 1 million largest e-commerce sites use Magento



(Datanyze 2015, cited 20.4.2015). This makes Magento a logical tool to learn when introduced to e-commerce and this supports the selection of Magento as the target of this tutorial.

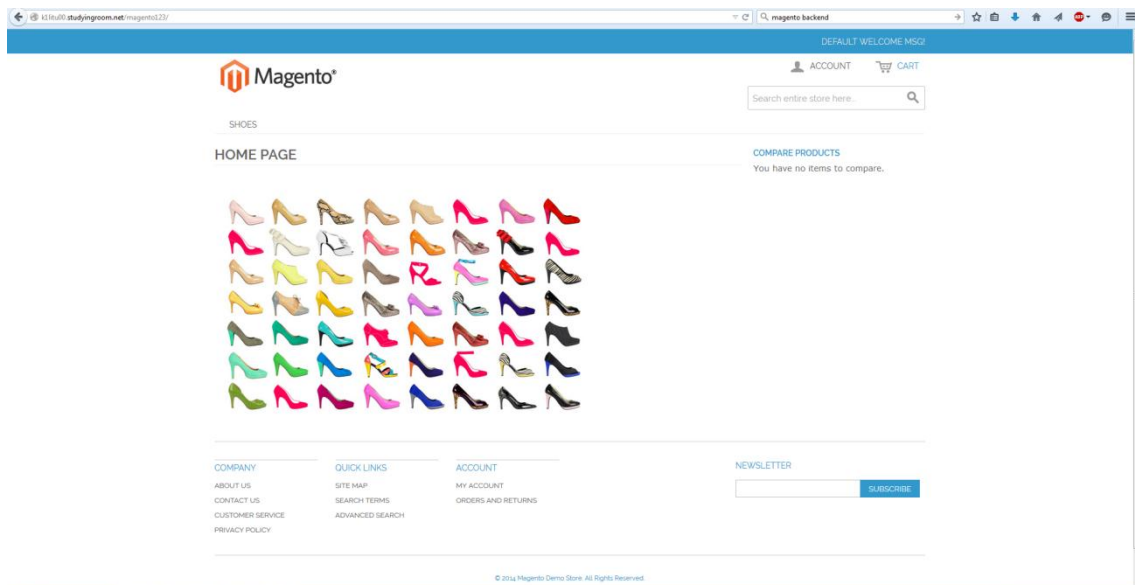
Although the Community Edition is free it is very versatile and highly scalable for stores big and small. It is certainly feature rich offering, from marketing, promotion tools, search engine optimization, catalog management and order management and plenty more (Magento Feature List 2014, cited 12.2.2015). Considering the practically endless features supported by Magento, choosing the subject matters for the tutorial videos was important to provide a full understanding of the aspects on an e-commerce platform.

## **2.2 Using Magento**

The goal of the thesis is to create a simple ladder to building a basic web store, also displaying the necessary parts that a web store requires. At its most basic core a web store needs a product and a platform for the customer to order that product. This means introducing the subject to the minimalistic basic steps of opening a store, creating a product, category and handling shipping and payment then teaching them. This tutorial will also provide a few tools of altering the design and look of the store. By introducing the subject to changing the Magento store theme gives a simple chance to personalize the store. Other personalization tool the tutorial will be providing is introduction to creating a CMS static blocks to further sites personalization.

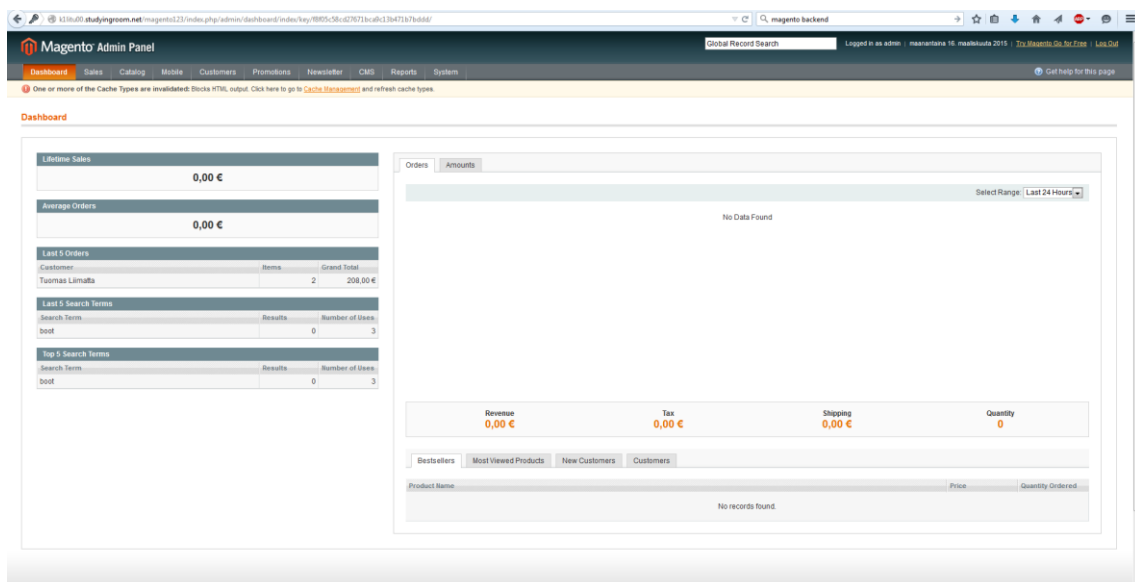
Start of the tutorial is naturally the installation of Magento. Magento will be installed using cPanel web hosting service for which the account is provided by OUAS. The process also requires registration on Magento's web site. Magento is a large program so the installation is a large and convoluted task, but if done clearly and in logical order the subject should have no problem with it.

Logical step after the installation is an introduction to the program. Magento operates in two panels. The first one is the frontend (picture 1). Frontend of Magento is the actual web store that you control. This is the page that the stores customers sees and does their shopping and purchase.



Picture 1. Magento Frontend

Second page of Magento is the backend (picture 2). Backend is where the content of the page is managed. This where everything from creating the products to confirming orders happen. Backend holds the vast majority of Magento's features that is why introducing the content is important.



Picture 2. Magento Backend.

Before creating a product, a web store needs a product category for it to be placed in. Creating a new category is the most straight forwards process that the tutorial covers. A category needs mainly only four points of information name, search engine information, layout and the products

that belong to it. Even if it sounds that category is less of an important part of the tutorial, it holds an important part in creating a structure for the entire web site.

Creating the product for your web store is at its simplicity the core of e-commerce. It is the content you are attempting to market and sell to the customers. Creating a product in Magento is fairly simple, but it holds a great amount of information with it. With the product every input is trying to make the product more desirable to the customer. All this starts with simple data name, description, image and price. Beyond the basics a product in Magento needs a stock keeping unit (SKU), Stock information, shipping information, tax class, SEO information and a design layout for how it looks on the site.

Like the product managing shipping and payment is the foundation of online market. Confirming and accepting orders and payments is a rather simple task of mostly collecting money. Method for payment that will be taught in the tutorial is the cash on delivery (C.O.D) method. Reason for not displaying payment with credit cards or using services like Paypal is because these options would require registration or input from a credit card. This is done to in attempt to save time by avoiding extra registration processes and using personal card information as an example. C.O.D option is the most straight forward option to go over in the tutorial and introduce the user to the payment methods, credit cards and Paypal can be hinted at while teaching C.O.D.

CMS static blocks and widgets are such a versatile tool so introducing them to the subject of the tutorial is a highly beneficial. Static blocks are blocks of code that can be used to create links, advertisement, banners or just blocks of text. These blocks are fairly simple to make and they are handily called and linked to different parts of the site.

Second to last part of the video tutorial is changing the theme of your web store. This is a basic feature to be able to modify the look and layout of your web site. Magento Community edition has a hundreds of free themes on Magento's own web store. Theme chosen to be used is named Magento Classic; it was selected due to being one of the most popular free releases. The installation process of new themes is fairly difficult and can be done in a few number of ways, so that is why it was chosen to shown and illustrated on in this tutorial. The method chosen to be taught is done using Magento's Magento Connect Manager feature.

Final part to the tutorial is editing the theme. Editing the theme is a basic feature to be included in the tutorial to complete the toolset provided for the learner. Managing colour scheme and changing images such as logos are instructed to fulfil this.

### 3 VIDEO AS A LEARNING TOOL

The introduction of Internet in the last 15 years has changed the world and along it has made a major shift in the methods of teaching and learning. These new changes include possibilities like email, internal intranets, social media groups, web libraries, university web sites and video tutorials. All these have changed the progress of studies for both teachers and students. They offer a lot of new features and possibilities, with their benefits and drawbacks video tutorials are an interesting tool to use.

The Internet is packed with video tutorials, teaching a wide variety of skills and knowledge. There are tutorials on a number of subjects from languages, cooking, games, and musical instruments to a mile long list of different IT programs. The cyber world is filled with these handy sized packages of knowledge. Still making these videos easy and pleasant to learn from requires knowledge and skills to execute a high quality video.

The Internet is full of sources where you can easily view thousands and thousands of video lectures and tutorials. There are multiple organized companies that offer full Massive Open Online Courses (MOOC), which are mainly open online courses. These MOOC courses offer interactive user forums for students and lecturers from the company. Some of the larger MOOC companies include Coursera, edX and Udacity, in Finland the largest is MOOC.fi who offer university quality tutorials in the field of IT. Largest and most popular source for free videos today is Youtube. With online tutorials it also reigns supreme, a search for "Video Tutorial" gives about 55 million hits on the search (Searched 19.3.2015). Youtube as it is open to the public to create content so quality varies greatly from good to bad.

Teaching and learning with online published video lectures and materials is an interesting new phenomenon. Looking closer at video materials they have a fair share of advantages and disadvantages.

### **3.1 Advantages**

Video lectures and tutorials have a lot of advantages to them. Some of these can support class room learning. Also some abilities unique to video lectures give them an edge in the learning process.

Firstly video materials are accessible almost all the time. An individual wanting to study by themselves can also simply search the still they desire to learn and start picking it up. Accessibility is also major edge over traditional school lectures. A person can use the material and study it when it suits them the best. This is extremely supportive for adult students who may be working during the day or raising a family. These people can go over the materials handily whenever they have the time and still learn. Accessibility is also a great advantage for normal students, who might miss normal class room lectures due to illness or vacation. This gives these students the chance to keep up with the group, without requiring special arrangement from the lecturer (Windermere 2015, cited 26.3.2015.)

Second major advantage video materials have is the possibility for repetition. This possibility is where video lectures set them apart mostly from traditional lecturing. With a video you can play, stop and rewind the video as you please, to ensure that you learn the material. This gives the subject control over the pace that the material is gone through and offers the possibility to especially focus on important points of the material. On top of this the learner may pick and choose the topics they want to learn. This way they can proceed in an order of their choosing or just learn a specific topic from a tutorial or lecture material. Possibility to control the speed of studies offers an equal playing field for students of different skill levels. Everyone may review the material as many times as the want or need. That is a big bonus for students preparing for exams and tests. This possibility of repetition is something not possible at a normal class room setting for the students to control the pace of a lecture over the lecturer (Windermere 2015, cited 26.3.2015.)

Another unique part of video lectures is the possibility use experts that are not available for class lectures. Guest lecturers are a common and a useful addition in normal class rooms, but they are usually rare. The lectures may show videos from foreign experts in the field from online, showing the experts lectures or presentations. Lecturers may also present video material of professional projects on the subject to the students.

A major advantage from video study material is also for the lecturer. A lecturer has the opportunity to carefully plan and compress the material to its shortest and easiest form. Also they have the possibility to correct themselves and checkup on the material mid production. These possibilities the lecturer does not have in the live class room setting.

Online environment of the Internet offers also possibilities to the online lectures. Along with the videos online it is easier to present links, documents and images to support the video. This and the online environment offer a lot of options for personalization, which supports the possibility to control the pace of your learning (Windermere 2015, cited 26.3.2015.)

### **3.2 Disadvantages**

With something having advantages there are bound to be some disadvantages. So is it too with the online world of video tutorials and lectures.

First and the clearest problem is the lack of human communication. First and foremost not being to communicate with the lecturer is a major disadvantage. If the video is part of a study course you may contact the lecturer, but in cases on free online tutorials contacting the creator might be hard or virtually impossible. Communication with lecturer is important in cases of problems, questions and in cases of special interests. Possibility for the lecturer to personally in person help the student is a major add in traditional studies. When using video lectures as support of regular studies, this problem can be solved and actually benefited in flipped classroom form of learning. In these cases the online material can be used in preparation for actual lessons to stir up questions beforehand. In cases where there is no contact to the lecturer this can be worked around with a helping community, especially in the field of IT. Still it will not overtake the immediate feedback and support of a lecturer (Answers 2015, cited 28.3.2015.)

Another disadvantage with communication is lack of communications with other students. Sharing thoughts and ideas with your peers is a great part of the learning process. This opens up different views and perspectives into the material and is extremely beneficial to the participants. This disadvantage may be avoided with using online MOOC sites and student groups on social media and in forums and comment sections (Answers 2015, cited 28.3.2015.) Part of this may also be

that there are students and lecturers who might be conservative towards these new methods. This conservative opposing view is an obstacle in integrating teaching methods that utilize videos as a tool.

Rest of the disadvantages with video lectures and tutorials are more technical and geared also towards the maker the videos. Biggest drawback might be the quality of a video. It is really difficult to learn from a video that is blurry or has bad visible quality. Same goes with sound, if the video uses sound to guide the subject. Sound can be too quiet, loud or just messy or unclear. This also is affected by the language of the video, whether the creator uses their mothers tongue or if they lack the language skills to present the lecture fluently. These problems with sound are simple to solve. Using a good quality microphone in recording is key to making a clear sounding audio, also important is to limit or fade out any background sound sources to make your instructions as clear as possible. With the performance naturally a non native speaker can deliver a clear and educational lecture, provided they have sufficient enough skills in the language of presentation. Biggest aid still in the audio delivery is preparation, with scripting you instructions and practicing them to make them as fluent and steady paced as possible (Answers 2015, cited 28.3.2015.)

A big disadvantage for the maker is that in many cases the maker does not know the target audience. With videos made for a specific group, whether that is a university student group or an order tutorial in these cases the creator knows the target audience. Opposite that with online free and public projects the creator may not know the audience. This brings up questions on what vocabulary to use with the subject, because not knowing how much the subjects know about the material beforehand. Also it is impossible for the creator to know the level of knowledge the learner has on the subject. Both of these problems might leave the video to be over simplistic and drag too slow. This will break the rhythm of the video and makes a not desirable video to learn from. (Answers 2015, cited 28.3.2015.)

Especially a threat with videos related to the field of IT is them running out of date. It is so easy for material in the lecture to become outdated. Magento Community Edition version 1.9.1.0 (released 11.2015) is used in the tutorial; therefore the directions are geared towards the current version of Magento. The means of preparing for the direction becoming outdated are fairly limited. At the date of creation of the tutorial it is impossible to predict changes in future patches to the program. Main mean of countering material becoming outdated is by instructing the subject of the



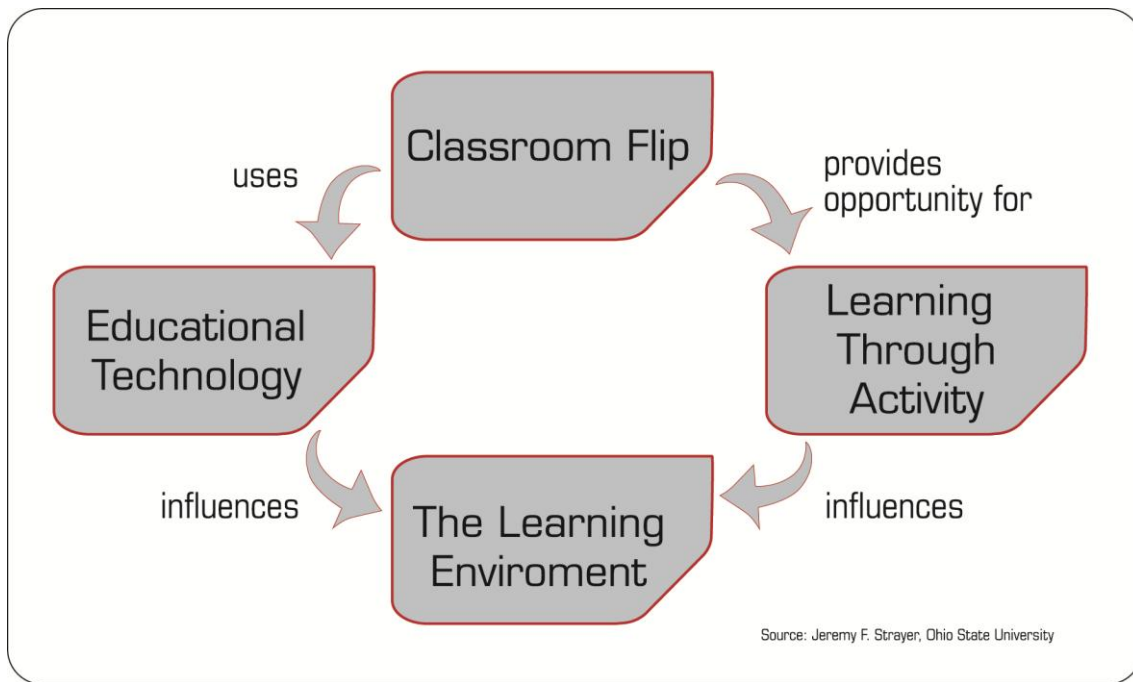
community sources for obtaining information the most relevant version. Online community in the field of IT is extremely helpful on the matter and different blog and forum sites offer information on the version changes. These community sources offers updates on version-to-version differences in the matter of days, possibly even hours. Problem of material running outdated is mostly towards the rapidly evolving field in IT, but it affects other fields too and therefore is important to include in the tutorial materials.

### **3.3 Video as a pedagogical tool**

In today's constructive pedagogical the focus is heavily on the students own activity and activity to research information on their own. Teacher's role as the traditional passing on knowledge is nearing its end. Today and in the future teacher's role will evolve more in to instructor of the learning process and into assessing the skills of students. These shifts in the pedagogical field lead towards a more open study environment, where students instead of reading and memorization approach studying through research and practical tasks (Matilainen 2010, 8.)

Together with this open study environment and the advances in the field of IT are creating new opportunities to improve efficiency of teaching. All the different platforms to produce and present video material along with the hardware to produce these videos have taken big leaps over the past decade. All this has contributed to new possible methods of teaching including the birth of flipped class room method and the MOOC courses.

Along with the MOOC courses the idea of flipping the class room has gained a lot of recognition and popularity. In this method the traditional way of learning is turned so that the student familiarizes the course material independently through material on online. Idea is that the students have a level of knowledge of the material in advance and the lecture time with the lecturer is used in group projects, making questions, presenting ideas and solving problems. This method frees the lecturer to be available for more personal tutoring and to be presenting more challenging tasks and team assignments (Sometek 2015, cited 18.4.2015.)



Picture 3. Flipped Classroom. Source Jeremy F. Strayer, Ohio State University (Matec 2015, cited 25.4.2015)

As demonstrated in the graph (picture 3) turning the principles of the classic classroom upside down promotes active learning. Using the same technological tools used in the classroom like video, images and different computer programs. Only in the flipped classroom the power to use these tools is given to the student, this way the student controls the pace and depth of their studying instead of the lecturer. This promotes a healthier and motivating learning environment.

Flipping the class room has made a lot of people question the traditional way of studying in today's information age. It is easier for students to familiarize themselves with their own pace and schedule. This freedom gives the student the power to choose what to focus on. At the core of flipped classroom is an active learner wants to learn and apply the learned knowledge in real life. Freedom and activeness on the student gives them personal feeling of learning and this feeds their motivation to study and to succeed (Sometek 2015, cited 18.4.2015.) Possibility for not so active students always is a presence, but what can be corrected through the material online and during the contact lectures.

## 4 IMPLEMENTATION

### 4.1 Planning

When the topic to do this tutorial set was decided with Mrs. Sinikka Suutari, the first step towards production was to begin planning the tutorial. Starting point was to create a basic tutorial that would teach the subject how to install Magento and then build a simplistic functioning web store using Magento. The core for this basic web store was to instruct installation of Magento, creation of a product category and creating products. Instructive lecturer Mr. Jouni Juntunen quickly suggested adding a full topic on Shipment and Payment. Magento offers plenty of options for both of them and explaining a presenting the options would be a large addition to the tutorial.

Magento has countless features and options for those features. Therefore the process of deciding which of these additional features to present in the tutorial was important. Adding too many side topics would make the tutorial too long and large to digest and fully understand. Due to the amount of these features an introductory tour of Magento was added to the video topic list. To shortly display where and what some of the additional features are leaves the subject with the options to try the feature out or research more into it. Then it was decided to add topics of installing a new theme and the use of CMS static blocks and widgets. The core steps of this tutorial do not offer too great of an opportunity to personalize the subject's web store so these topics were added to support that.

Planning for filming the videos included drafting a manuscript for each topic in the tutorial. A manuscript was written as simple step-by-step process to follow during filming the lecture. These manuscripts were created using my own words and created using Microsoft Word (picture 4). These manuscripts were there to provide a reminder on the process and to help the video move at a steady pace without any pauses or instructions losing focus.

## Create new Product in Magento

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1. Open Magento backend and select Catalog > Manage Products
2. Make sure Attribute Set is set to Default – Select product type as wanted > Continue
3. Compulsory information marked with a red star!
4. Fill in Name, Description, short description, SKU (Storage keeping unit), Weight(1), Status and Visibility + other if wanted.
5. Prices fill in Price.
6. Meta information used for Search Engine crawling and is useful to fill.
7. Images load wanted image and name it.
8. No need to touch Recurring Profile and Gift Options
9. Design select Custom Design – rwd default
10. In Inventory fill in Qty with the quantity you have and check Stock Availability to be in Stock.
11. Categories tick the categories you want the product to show up in.
12. In Up-sells tick products you want to show up on the product page.
13. Skip Related Products, Cross-sells and Custom Options.
14. Save.Done.

Picture 4. Example manuscript of a planned video.

Taking inspiration from other programming tutorials online, during the planning phase it was decided to add a title image to the start of each video. These images can be used as thumbnail images for the tutorial. This gives the whole tutorial set an even visual look to make it coherent. Also these title thumbnail images were a good place to implement licensing and creative credits. A Creative Commons license was added to ensure credit to the creator and to preserve the original material. The Creative Commons license used is Attribution-NoDerivs CC BY-ND (Picture 5). This gives the user following rights regarding the videos “this license allows for redistribution, commercial and non-commercial, as long as it is passed along unchanged and in whole, with credit to you” (Creative Commons 2015, cited 18.5.2015). Due to the fact that OUAS is a corporation the license was allowed commercial use. Besides the license acknowledgement to the creator Tuomas Liimatta was added to the title image (Picture 5).



Picture 5. Title image for tutorial video.

## 4.2 Recording

Recording of the material was done using tools available. Screen capture was done using Windows Media Encoder. Also audio recording was done using a Creative HS-390 headset microphone and also recorded on Windows Media Encoder. Few of the tutorials (Installation of Magento part 1 & 2) and the addition of thumbnail images required some editing and Windows Movie Maker was used in these parts. The Installation videos had breaks in the flow of the lecture due to instances of downloading material. To save time and make the video flow these parts were edited to resume after the download was complete.

After the filming the videos were concluded, the videos were presented to Mr. Juntunen to be approved and reviewed. If there were any necessary improvement to be done to the videos they were re-recorded to correct them. At this point the idea to add an additional video to explain the editing options for theme was added.

### 4.3 Contents

First of the videos is part 1 to installing Magento. The video covers the necessary steps needed before the actual installation of Magento. These include requesting an account to Cpanel and Studyingroom.net server from a lecturer at OUAS. These are the web servers where Magento will be installed. After this the video instructs the user on how to register and download Magento installation file from their web site. Once this is accomplished the learner is instructed in uploading this installation file to File Manager in Cpanel. The video ends being ready to install Magento. Installation was divided into two parts to keep the videos around the 10 minute length with first video being 7 minutes 52 seconds.

Second video in the series is part 2 to the installation. The second part covers the installation process with creation and linking Magento to a database in Cpanel. The tutorial walks the user simply through the installation program. This video also covers some possible errors and problems in the installation process and those increase the length of the part 2 of installation. Part 2 of installation is 12 minutes 37 seconds in length.

The third video in the tutorial is an introduction to Magento. It briefly covers the parts and features that Magento's backend and frontend have. This mainly consists of shortly explaining the navigational tools in Magento. Introduction video's length is 11 minutes 49 seconds.

Fourth video in the series is creating a category. The video walks the learner through the steps and options in creating a category. The video is very linear and direct and it displays in the video's length, being at 8 minutes and 56 seconds.

Following creation of a category is creating a product. The fifth video of the series explains the steps and options to creating a product in Magento. The video is very similar to the creation of a category video with only more exploration into different features and info in the creation process. These options make the video longest of the series at 14 minutes and 17 seconds.

Sixth video explains the options and features related to shipping and payment. Explaining where to manage orders as well as shipping and payment methods is important to a web store. Therefore these matters are covered in detail; an example order is created to present how the process

of an order is managed by the system. Shipping and payment videos length is 12 minutes and 6 seconds.

CMS static blocks and widgets are the seventh video in the tutorial. In this video the creation of various blocks of code and how to place them is taught. The example in the video is on how to create a basic banner for the site and how to place it on the site. The videos running time is 11 minutes and 39 seconds.

Eight video is instructions on how to change the default theme of Magento. The lecture consists of downloading and installing a new theme from Magento's developer store. Theme used is called Magento Classic. The instructions teach how to download and install the theme using Magento's Magento connect manager feature. The video finishes with display of the new theme and the running time for the video concludes at 10 minutes and 30 seconds.

The final video in the tutorial series is on editing the theme. This video instructs in changing color of the site. This includes modifying the Cascading Style Sheets (CSS) to fill in the code to change color. Following this changing the logo of the site is taught. Change includes uploading a new logo images into the right directory in the Cpanel, then selecting it at the backend of Magento. During both of the features use of the tool inspect element is taught. Inspect is a feature in most common web browsers to inspect the parts of coding that make up different elements. Using this helps to track down files and parts of code that needs to be edited to make certain changes.

After the approval of every video from Mr. Juntunen the video material was handed to him to be uploaded to the schools Youtube web page to be released. There it will be used as material for future students and courses.

## 5 CONCLUSION

Finally here we are at the end of the study. The idea of the whole thing was to create a simply structured video tutorial series covering the basic features of the e-commerce CMS system Magento. This was great opportunity to present my personal knowledge of Magento as well as familiarizing myself with the methods of producing tutorial videos. Both of these combined with the fact that OUAS is introducing Magento into the school curriculum; it was a great opportunity to create something to be used with other students. This gave the project of making the tutorial lot more weight and pressure to make it good with it being used and not only existing as a demo production.

The fact that Magento is an extremely feature rich system means that it might have a challenging steep learning curve for the target audience. Here the knowing fact that the target audience is the OUAS students gave the videos a target audience to aim at with the content and steepness of the tutorial. Had this been an open tutorial series online the content would have been a lot more ambiguous and unfocused. This target audience gave me the chance to have a general picture of the audience's level of skill, knowledge and tools at their use. All this meant I could assume that the student is using schools Cpanel account and not go over all the other options for a web hosting providers.

I have written a lot about videos in this thesis. Creating a tutorial in the video format has been a pleasure, but with it covering material in the field of IT has its imperfections with the fast developing field. It makes me wonder how long this video tutorial is going to be in use with the students at OUAS. Personally I hope it would have its relevance for a multiple years. I have seen the development of Magento over a few years and the core functions and practices have stayed the same. Therefore I think that most of the tutorial videos will have their relevance for years. Only exceptions with this are the installation video parts 1 and 2. The installation process has most moving parts with servers, databases, downloads, and uploads. Therefore a simple change to the process in future updates, might bring new steps or problems that this tutorial doesn't cover.

Along the ride it was a great pleasure to have a deeper look into video as a learning tool. Looking deeply into the advantages and disadvantages of video material as a tool definitely developed production the tutorial. Researching the use of video as a pedagogical tool also gave the thesis



some needed weight and depth to keep it from being just a diary of making videos. I felt that this was extremely gratifying and made the thesis feel like an actual research.

Finishing up with the thesis makes you think of what kind of further development the subject matter might have. Following up with the raise in popularity of using video tools in pedagogical teaching would be really interesting to visit a few years into the future. Also a deeper look into the pedagogical options with videos, like flipped classroom could have been conducted for a deeper understanding of the possibilities videos offer. Thinking of things for further development also makes me think of things that could have been done differently. Personally I am pleased with the process of creating the videos and how they turned out. The videos could have been polished out by rerecording several more times, but having several videos to create on top of the research was the limiting factor and the videos current satisfying versions are used. Research was a hard one to handle. With research you can dwell far and deep into the research subject until you grow old. Still I feel I could have enlisted more time and sources to the research, especially in the pedagogical features. Still I am satisfied with the content and proud of the research and findings done with the research.

Personally the most gratifying part of the thesis was the versatility of the content and actions covered over the production of both the tutorial videos and this thesis. Over the entire thesis there was a great scope of various activities that kept the process fresh. There were the production of the videos with preparing and planning the videos and then filming and editing them. Here also was included the creation of the title images for the videos using Photoshop. All of these balanced well with the research of the pedagogical and theoretical side of the video. The balance of these more creative tasks and the research made the thesis a versatile process and made it very pleasant to work on.

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