

# A new concept of Knowledge and Information management in an Imaging Department: How to make use of a wiki.

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**Abstract.** *Learning Objectives:* Using a wiki software system to organise knowledge and information flow in an effective way. *Background:* High quality, efficiency and cost-effectiveness in an imaging department demand optimal work flow. Knowledge and information management are core tasks to achieve these goals [1]. While systems like PACS<sup>2</sup> and RIS<sup>3</sup> facilitate efficient patient related work flow in a fully digitalized imaging department, there is no common tool to manage institutional knowledge and related information. This tutorial explains how to use open source software using the wiki paradigm in an imaging department. *Conclusion:* This tutorial illustrates an easy way to create a wiki knowledge base, which organises knowledge and information in an effective way with a minimum of technical effort.

**Keywords:** Learning, Diagnostic procedure, Computer Applications-General, eHealth, Education, Computer applications

## 1. Introduction

High quality, efficiency and cost-effectiveness in an imaging department demand optimal work flow. Knowledge and information management are core tasks to achieve these goals [1]. While systems like PACS and RIS facilitate efficient patient related work flow in a fully digitalized imaging department, there is no common tool to manage institutional knowledge and related information.

"The Internet, and most notably the Web 2.0 movement, is introducing some overwhelming changes in our society. Research and teaching in the hospital setting will join this current and take advantage of these tools to socialise and improve knowledge management" [2]. This demonstration explains how to use open source software using the wiki paradigm in an imaging department. The software allows easy creation and editing of any number of interlinked Web pages, using a text editor within the web browser. Furthermore its full sized storage, search and export software stores all types of specific information the radiologist needs.

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<sup>2</sup>PACS stands for Picture Archiving and Communication System

<sup>3</sup>RIS stands for Radiology Information System

## 2. Procedure Details

The purpose of this poster is to demonstrate how radiological knowledge may be condensed in a wiki to improve the quality of service. Facts and information can be condensed to knowledge through five steps. The following figure shows the process.

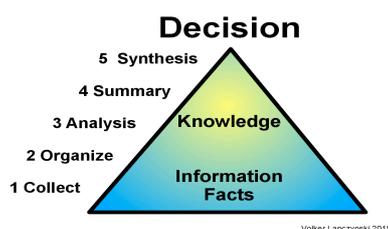


Figure 1. Model of decision making process.

Getting the right information to the right radiologist at the right time by a wiki can improve user centred networked health care. As Johann Wolfgang von Goethe said: "You only see what you know!"

Xwiki [3] is a useful tool for knowledge and information management. The full functional open source Web 2.0 wiki system provides:

- Integration of a high-performance text search engine that is also capable of searching attachments such as PDF or MS-Word documents.
- WYSIWYG (What You See Is What You Get ) text editor. Wiki link engine with parent and child links guiding to related information.
- Possibility to create and update content which allows for collaborative work of a great number of web authors.
- Categorization of content by users broadening the taxonomy scheme.
- Extensions software that makes the wiki also an application platform as well as a document server.

## 3. Conclusion

This tutorial illustrates an easy way to create a wiki knowledge base in an imaging department that organises knowledge and information in an effective way with a minimum of technical effort.

## References

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