Faculdade UnB Gama - FGA
Professor: André Barros de Sales
Disciplina: Requisitos de Software
Matrícula: 231027186 Nome: Samuel Nogueira Caetano
Matrícula: 221031256 Nome: Angélica da Costa Campos
Matrícula: 211062179 Nome: Marcelo de Araújo Lopes
Matrícula: Nome:

Tópico: Engenharia de Requisitos – Lista de verificação – Rich Picture

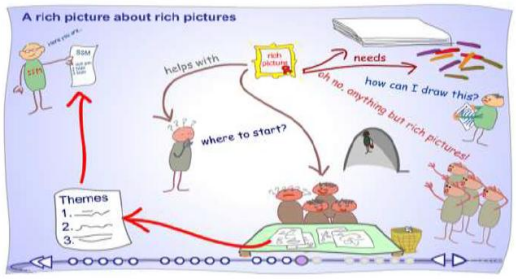
1. Identificar processos de negócio e dados: A Rich Picture deve ajudar a identificar os processos de negócio e seus requisitos de dados.

(Introducing Rich Pictures, Pág. 1)

CTEC2402 Software Development Project 1

Introducing Rich Pictures

A rich picture is an effective tool for analysing problems and expressing ideas. For example, given below is a rich picture about how to draw rich pictures.



When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts

(Samuel Nogueira Caetano)

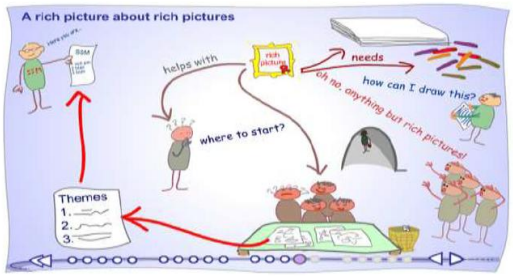
2. Identificar atores e responsabilidades: Deve-se identificar os atores envolvidos nos processos e suas responsabilidades.

(Introducing Rich Pictures, Pág. 1)

CTEC2402 Software Development Project 1

Introducing Rich Pictures

A rich picture is an effective tool for analysing problems and expressing ideas. For example, given below is a rich picture about how to draw rich pictures.



When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts

(Samuel Nogueira Caetano)

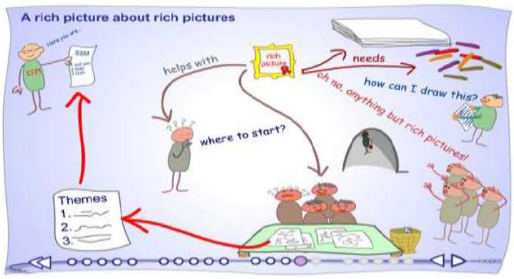
3. Mapear relacionamentos: A Rich Picture deve mostrar as relações entre processos e atores.

(Introducing Rich Pictures, Pág. 1)

CTEC2402 Software Development Project 1

Introducing Rich Pictures

A rich picture is an effective tool for analysing problems and expressing ideas. For example, given below is a rich picture about how to draw rich pictures.



When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts

(Samuel Nogueira Caetano)

4. Apontar problemas e conflitos: Deve-se evidenciar problemas e conflitos potenciais existentes no

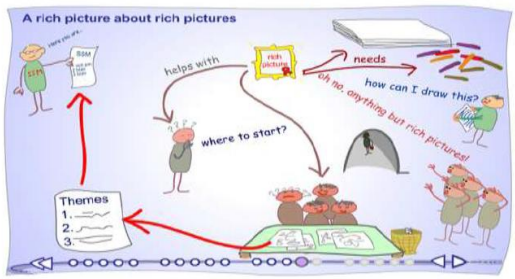
cenário.

(Introducing Rich Pictures, Pág. 1)

CTEC2402 Software Development Project 1

Introducing Rich Pictures

A rich picture is an effective tool for analysing problems and expressing ideas. For example, given below is a rich picture about how to draw rich pictures.



When developing a solution to a business problem, it is essential to understand the vital components of that problem. Rich pictures can help you to identify:

- Business processes and their data requirements
- The actors involved in the processes and their responsibilities
- The relationships between processes and actors
- Potential problems and conflicts

(Samuel Nogueira Caetano)

5. Posicionar palavras-chave relevantes: Todas as palavras-chave relevantes devem ser colocadas ao redor da declaração do problema central.

(Introducing Rich Pictures, Pág. 2)

CTEC2402 Software Development Project 2

How to Draw a Rich Picture?

One approach is to start with a short problem statement, in the centre of the page; and then, place all the relevant keywords around it.

For example, take the running of a sports club. What keywords are likely to be relevant? The keywords that you come up with will prompt you to consider those issues. To start with, write down everything you can think of. Later on, you can remove those keywords that you decide are irrelevant.

Consider the sports club rich picture given below.

(Samuel Nogueira Caetano)

6. Não ser excessivamente verboso: Priorize o uso de imagens e diagramas para representar conceitos e relacionamentos, evitando sobrecarregar a Rich Picture com texto.

(Introducing Rich Pictures, Pág. 2)

Your rich picture should contain all the relevant keywords. However, it is the use of pictures and diagrams to represent concepts and relationships that makes rich pictures so popular. This is because a good, clear picture will communicate ideas more readily than words. So, d*o not make your rich picture too wordy*.

Also, do not expect to complete your rich picture straightaway. Start with a rough version of the problem domain and develop it over time. As you develop your rich picture, you can identify further issues to consider, as well as what keywords to include and what to reject.

Shown below is an incomplete rich picture.

Introducing Rich Pictures 2

(Samuel Nogueira Caetano)

7. Contar uma história: A Rich Picture deve contar uma história, utilizando imagens, figuras, palavras-chave e rótulos descritivos para dar ao leitor uma ideia clara do que está acontecendo.

(Introducing Rich Pictures, Pág. 3)

Your rich picture must tell a story. This means using images, pictures, keywords and descriptive labels, to give the reader a very good idea of what is going on. In terms a business problem, your rich picture must say who is processing what data for what purpose, what data is coming into the system, what information is going out, and so on.

Introducing Rich Pictures 3

(Samuel Nogueira Caetano)

8. Incluir informações essenciais do negócio: Em um contexto de problema de negócio, a Rich Picture deve indicar quem está processando quais dados, para qual propósito, quais dados estão entrando no sistema, quais informações estão saindo, e assim por diante.

(Introducing Rich Pictures, Pág. 3)

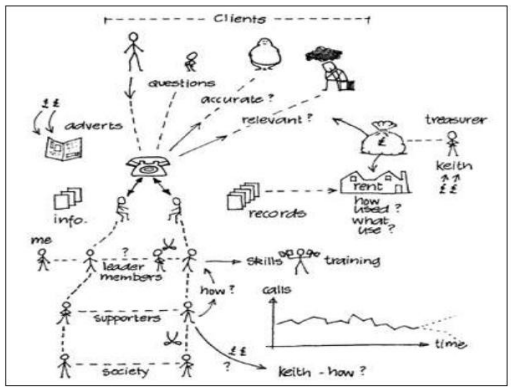
Your rich picture must tell a story. This means using images, pictures, keywords and descriptive labels, to give the reader a very good idea of what is going on. In terms a business problem, your rich picture must say who is processing what data for what purpose, what data is coming into the system, what information is going out, and so on.

Introducing Rich Pictures 3

(Samuel Nogueira Caetano)

9. Garantir clareza e compreensão: A Rich Picture deve ser compreensível para o leitor; se não for, indica que está incompleta ou foi mal desenhada.

(Introducing Rich Pictures, Pág. 3)



Not every rich picture can convey its message effectively.

If you cannot understand what a rich picture is saying, then it is either incomplete or it has been drawn badly.

Discuss with your team mate how effective you think the rich pictures in this document are. Be critical. What improvements would you make?

(Samuel Nogueira Caetano)

10. Identificar atores: Um dos primeiros passos para desenhar Rich Pictures relacionadas a negócios é identificar os atores no domínio do problema.

(Introducing Rich Pictures, Pág. 4)

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

1. Identify the actors in the problem domain
2. For each actor, identify the operations they need to perform
3. Identify the data requirements of each operation, noting
    a. Where data will be held; and
    b. The direction of data flow between actors, operations, and stores
4. Draw the system boundary to define your area of responsibility.

Introducing Rich Pictures 4

(Samuel Nogueira Caetano)

11. Identificar operações por ator: Para cada ator, identifique as operações que eles precisam realizar. Conforme

(Introducing Rich Pictures, Pág. 4)

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

1. Identify the actors in the problem domain
2. For each actor, identify the operations they need to perform
3. Identify the data requirements of each operation, noting
    a. Where data will be held; and
    b. The direction of data flow between actors, operations, and stores
4. Draw the system boundary to define your area of responsibility.

12. Identificar requisitos de dados: Identifique os requisitos de dados de cada operação, observando onde os dados serão armazenados e a direção do fluxo de dados.

(Introducing Rich Pictures, Pág. 4)

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

1. Identify the actors in the problem domain
2. For each actor, identify the operations they need to perform
3. Identify the data requirements of each operation, noting
    a. Where data will be held; and
    b. The direction of data flow between actors, operations, and stores
4. Draw the system boundary to define your area of responsibility.

Introducing Rich Pictures 4

(Samuel Nogueira Caetano)

13. Representar atores graficamente: Atores (usuários ou grupos de usuários) devem ser representados graficamente como bonecos de palito com rótulos descritivos.

(Introducing Rich Pictures, Pág. 4)

Rich Picture Components	Comments
Actors (with descriptive labels)  Manager  Clerk	Actors are the users of your system. An actor may also represent a group of users; e.g., one manager plus five data clerks will still show two actors. An actor may carry out any number of operations. Represented graphically as matchstick people.

(Samuel Nogueira Caetano)

14. Representar operações graficamente: Operações (processos ou funções) devem ser representadas graficamente como círculos ou ovais, com um rótulo descritivo dentro.

(Introducing Rich Pictures, Pág. 4)

Operations (also known as processes or functions) 	Operations specify what the system does. Each operation is executed either by an actor or another operation. Represented graphically as circles or ovals, with a descriptive label inside.

(Samuel Nogueira Caetano)

15. Representar armazenamentos de dados graficamente: Armazenamentos de dados (tabelas ou arquivos) devem ser representados graficamente como retângulos e devem mostrar o tipo de dados que contêm.

(Introducing Rich Pictures, Pág. 4)

Data stores (also known as tables) Clients	Data stores are essentially the tables in your database or files in the system. It is also necessary to show the type of data they contain. Only operations may read from or write to data stores. Represented graphically as rectangles.

(Samuel Nogueira Caetano)

16. Usar setas para fluxo de dados: As setas devem ser de uma ponta, indicando a direção do fluxo de dados ou informações, e devem ter rótulos descritivos.

(Introducing Rich Pictures, Pág. 4)

Arrows User details → ← Confirmation	Arrows show the direction of data (or information) flow amongst actors, data stores and operations. Arrows may cross the system boundary (see below). Represented graphically as single-headed arrows. Descriptive labels indicate the nature of the data or information flowing.

(Samuel Nogueira Caetano)

17. Definir o limite do sistema: É de vital importância definir sua "área de responsabilidade" depois de desenhar os outros elementos, pois isso delimita o que o software precisará suportar.

(Introducing Rich Pictures, Pág. 4)

Note that a rich picture may represent a wider business perspective than the specific problem that you want to solve. In other words, it may contain things that you will not be required to implement. So, having drawn a rich picture, it is vitally important to define your "area of responsibility".

Here is an approach to drawing business-related rich pictures:

1. Identify the actors in the problem domain
2. For each actor, identify the operations they need to perform
3. Identify the data requirements of each operation, noting
    a. Where data will be held; and
    b. The direction of data flow between actors, operations, and stores
4. Draw the system boundary to define your area of responsibility.

(Samuel Nogueira Caetano)

18. Representar o limite do sistema graficamente: O limite do sistema deve ser representado graficamente como uma linha circular (geralmente sólida, mas pode ser tracejada).

(Introducing Rich Pictures, Pág. 4)

System boundary  (usually a solid like But my also be dashed)	The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line. Normally, this is the last thing you should add to your rich picture.

(Samuel Nogueira Caetano)

19. Adicionar o limite do sistema por último: O limite do sistema deve ser, normalmente, a última coisa a ser adicionada à sua Rich Picture.

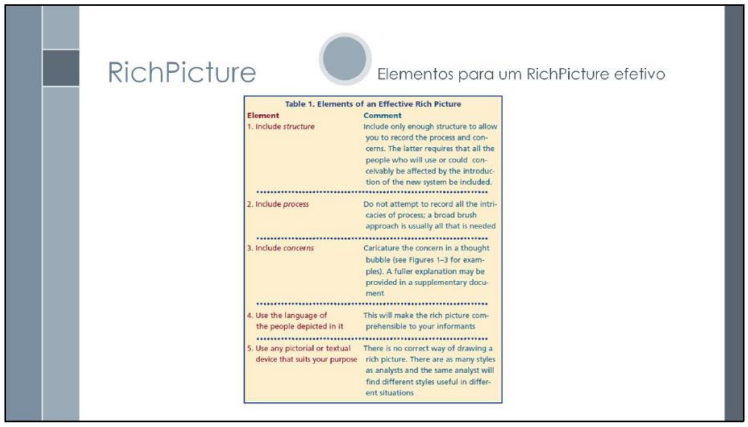
(Introducing Rich Pictures, Pág. 4)

System boundary  (usually a solid like But my also be dashed)	The system boundary identifies those operations that you are responsible for (i.e., your area of responsibility), which means that your system must carry out everything that is inside the system boundary. You can ignore what is outside. Represented graphically as a circular line. Normally, this is the last thing you should add to your rich picture.

(Samuel Nogueira Caetano)

20. Utilizar o rich picture como desenho à mão livre: Embora haja diretrizes, é importante não engessar a forma de construção, tratando-o como um desenho à mão livre. (No entanto, para o propósito deste módulo, as diretrizes de componentes devem ser seguidas).

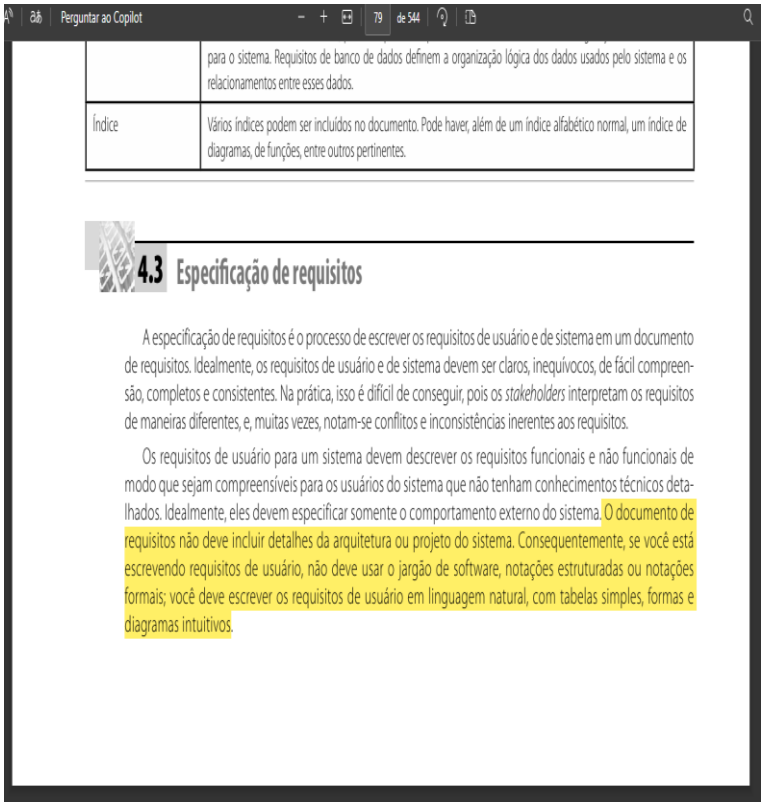
(Requisitos - Aula 04, Pág. 17)



Apesar do slide conferir algumas diretrizes ou sugestões, é interessante não engessar a forma de construção de um RichPicture.
Trata-se de um desenho a mão livre.

(Samuel Nogueira Caetano)

21. Evitar ambiguidades visuais: O Rich Picture deve ter representações que transmitam a ideia de forma clara e inequívoca, evitando ambiguidade entre stakeholders.



(Sommerville, Engenharia de Software, 9ª ed., Seção 4.3, p.79 – Especificação de Requisitos)
(Angélica da Costa Campos)