A Taxonomy of the Future Internet Accounting Process

Igor Ruiz-Agundez, Yoseba K. Penya and Pablo G. Bringas

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"A practical botanist will distinguish at the first glance the plant of the different quarters of the globe and yet will be at a loss to tell by what marks he detects them"
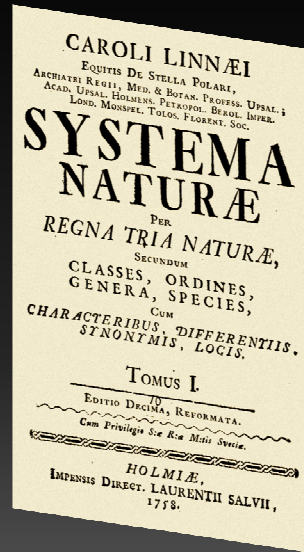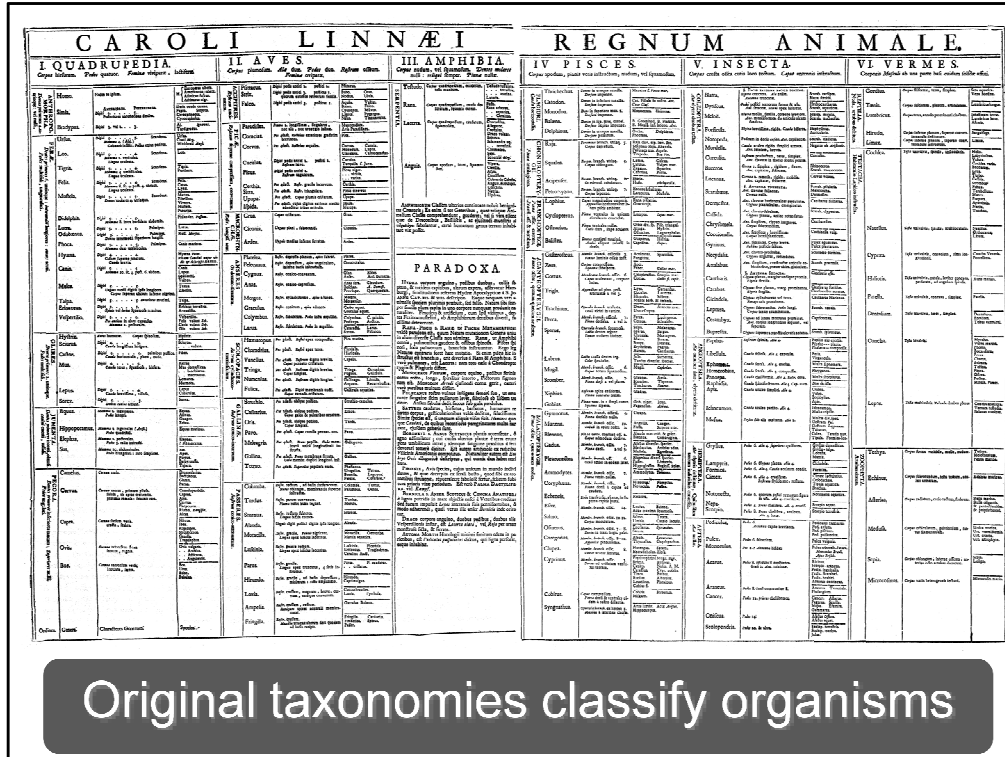
Carolus Linnaeus

Carolus Linnaeus,
Systema Naturae
(1735)

Systema Naturae is the first taxonomy of modern science.

Original taxonomies classify organisms

Originally taxonomies were used only to classify organisms.

Nowadays, taxonomies are used to classify things and concepts of any type.

There are economic, biological and even military taxonomies, each one specifying its domain area.

Furthermore, taxonomies can have a tree, network or linear structure.

Why we use taxonomies?

Taxonomies are useful for learning, teaching and assessing and a central part of most conceptual models.

They are specially useful presenting limited views of a model for human interpretation, and play an essential role in reuse and integration tasks.

We developed a taxonomy of the Accounting Process

Accounting Internet implies engineering

But also implies economics

Definition of Accounting

The art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character, and interpreting the results thereof
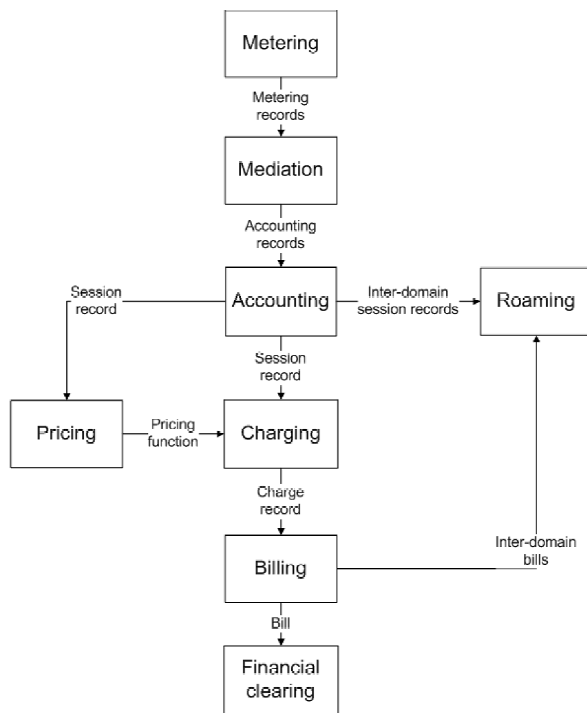
Internet Accounting

Accounting of service usage is one of the main tasks of service providers in their operation and management processes, providing the necessary information for the subsequent functions

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Accounting is a process. A meta-concept.

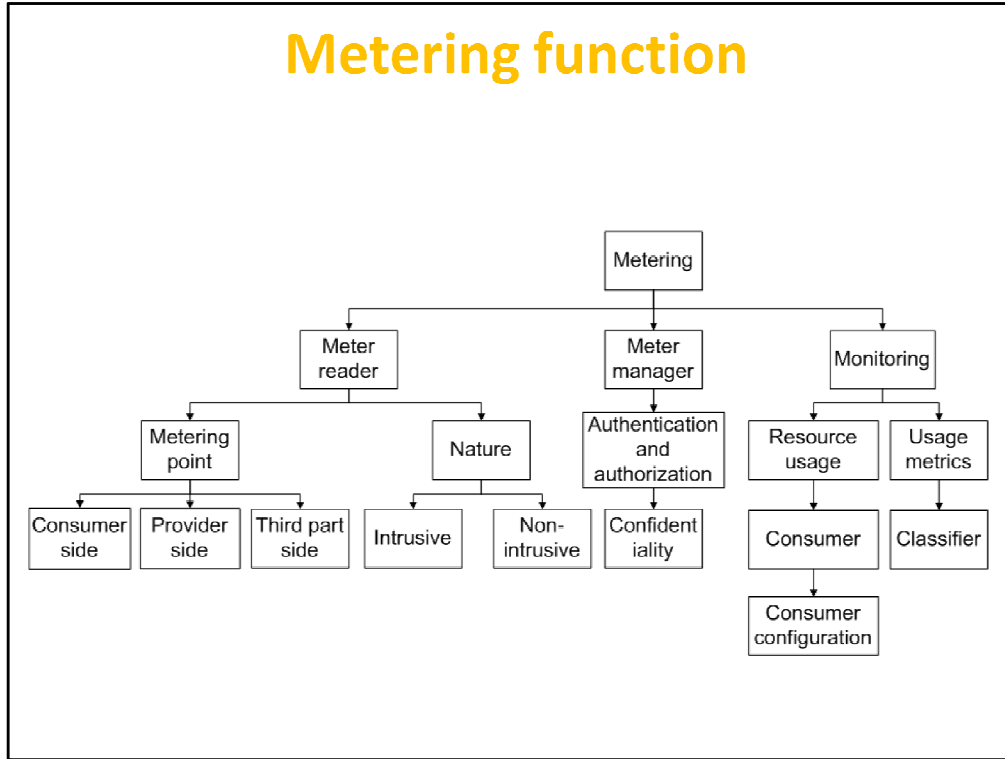Our taxonomy tries to disambiguate and unify different authors terminology and semantics.

An integrated vision of the accounting process
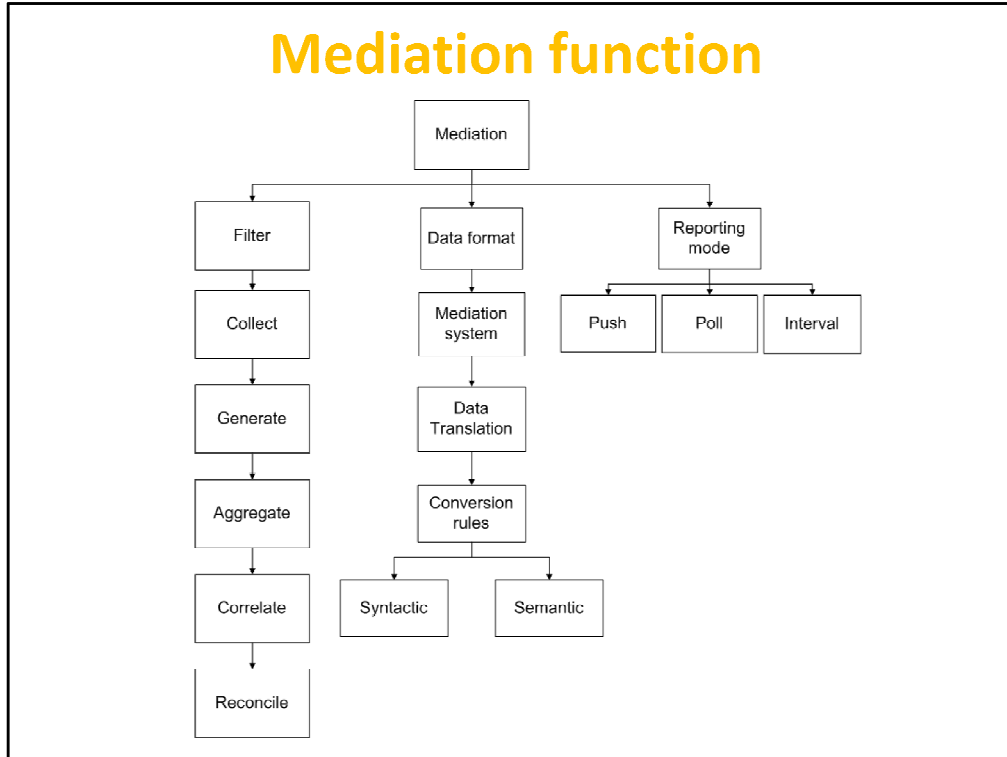
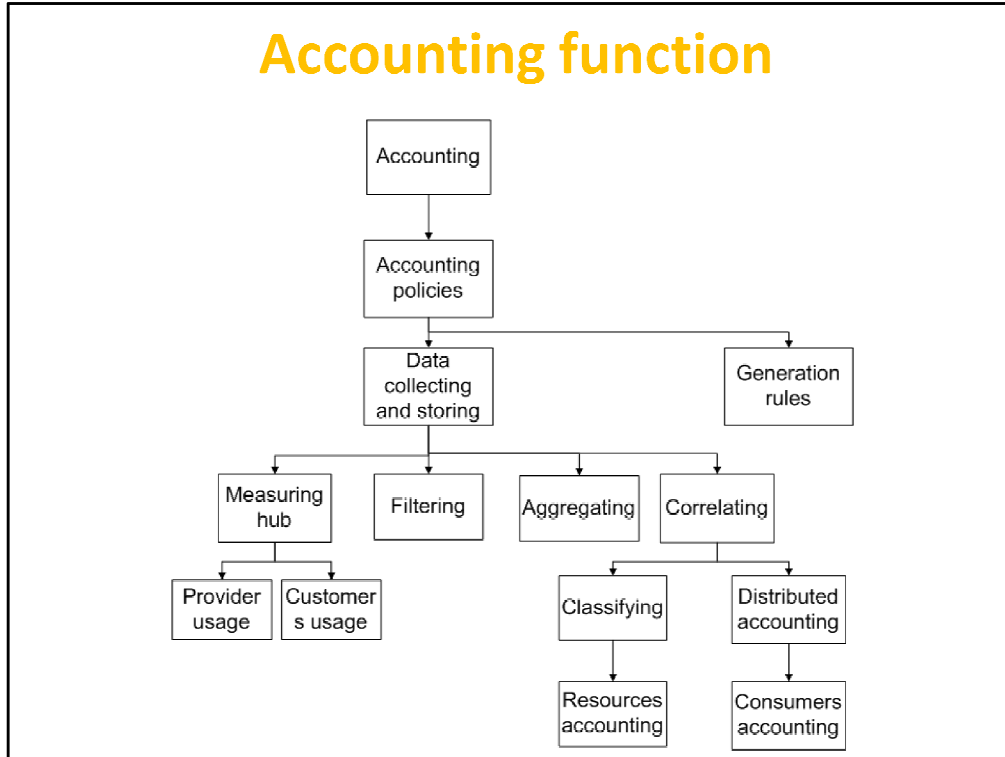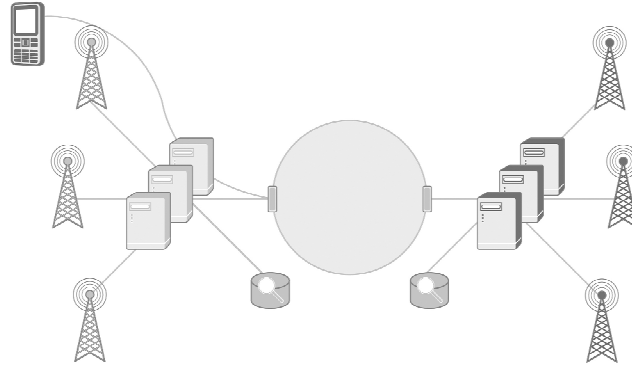An integrated vision of the accounting process

Metering function

Mediation function

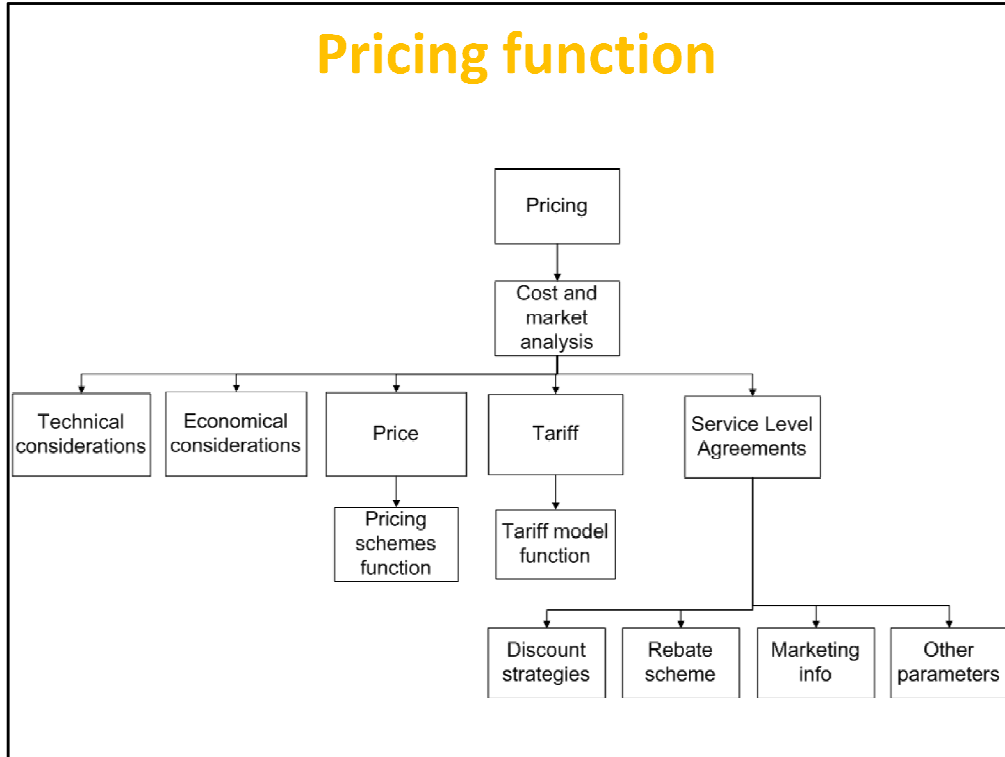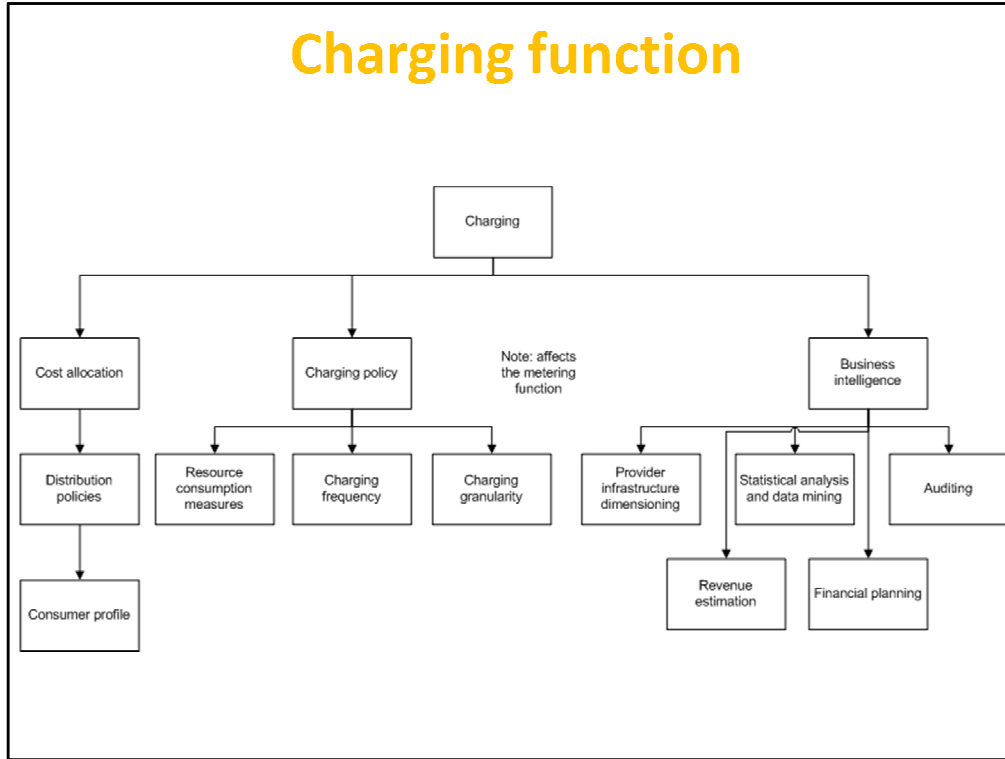# Accounting function

Accounting function

Roaming function

Roaming function
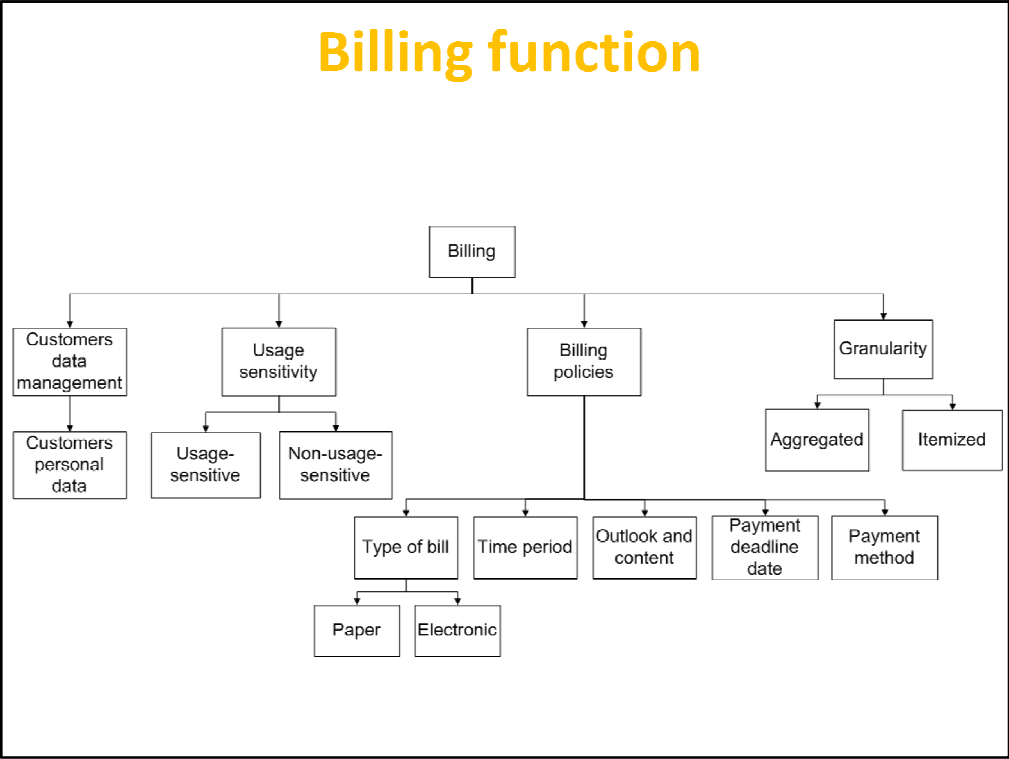
Pricing function

Charging function

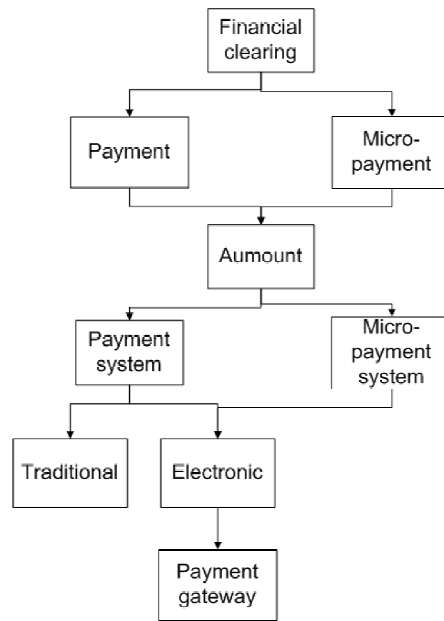Charging function

Billing function

Financial clearing function

Financial clearing function

Conclusions

We introduce a taxonomy of the accounting process. We detailed all the functions involved in it, looking at all the relationships between them.

Taxonomies contributes to the learning, training and assessing in the area of accounting.

Gives an integrated vision of the accounting process in the Internet. We presented an unified and controlled vocabulary that can be use in any operation related with the Internet accounting.

Defines a common vocabulary.

Future work include implementing an accounting system, validating the taxonomy with direct inspection and validation metrics, and, if needed, updating the taxonomy itself if there are substantial changes in the area of Internet accounting.

We defined the pillars to develop Internet accounting related works

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