

ExaCt Manifesto

— Explanation-aware Computing —

Introduction

Explanation-aware computing is the vision of complex information systems being smart in interactions with their users. It is about improving their explanation capabilities.

In everyday human-human interactions explanations are an important vehicle to convey information in order to understand one another. Explanations enhance the knowledge of communication partners in such a way that they accept certain statements. Understanding more allows them to make better informed decisions. Explanations support humans in their decision making.

The need for explanations provided by complex information systems is well-known and was addressed by such fields as expert systems, but explanation research needs to look at the results of recent developments.

The goals for the Manifesto are to:

1. Articulate a vision for explanation-aware computing that interested researchers want to pursue;
2. Speak to people, whether or not they have a technical background; and
3. Provide a framework for interested researchers to advance this vision.

The ExaCt community is committed to advancing the principles set out in the ExaCt Manifesto. We invite others to join us and make complex information systems and in the end computer systems, in general, better usable for everyone.

Principles

1. Explanations are part of communication processes and, thus, should enrich human-machine interactions.
2. Explanation-aware computing systems should state their explanation capabilities explicitly, for example, what is explained and how.
3. Explanation-aware computing systems should be aware of their own limitations and make them visible to their users.
4. Explanation generation should adhere to engineering principles.
5. Free and open source software promotes the development of explanation-aware computing capabilities; tool sets should be made available free and open source.

These principles will not come to life on their own. The ExaCt community is committed to advancing the principles set out in the ExaCt Manifesto. We invite others to join us.

Advancing the ExaCt Manifesto

There are many different ways of advancing the principles of the ExaCt Manifesto. As the ExaCt Manifesto is based on research results of the Explanation-aware Computing workshop series one way of advancing the Manifesto is the continuation of the workshop series. We welcome a broad range of activities, and anticipate the same creativity that ExaCt community members have shown in other areas of research and in applying research results.

Invitation

You are invited to support the principles of the ExaCt Manifesto and to join with us, and to find new ways to make this vision of explanation-aware computing a reality.

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