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# The Power of Ideas

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Insights for Building  
Meaningful Lives

## Francesca Rossi

Distinguished Research Staff Member  
IBM Research, and Professor of  
Computer Science, University of Padova



## Artificial Intelligence: The Importance of Ethical Development

This year alone at least one billion people will be touched in some way by Artificial Intelligence (AI).

AI is transforming everything from financial services to transportation, energy, education, and retail. In healthcare alone, IBM Watson is engaged in significant efforts to help radiologists identify markers of disease; to help oncologists identify personalized treatments for cancer patients; and to help neuroscientists identify genetic links to diseases like ALS—paving the way for advanced drug discovery.

AI systems are undeniably powerful tools. And like all powerful tools, great care must be taken in their development and deployment. The first step in this process is to build systems that can be trusted. This will require a framework of best practices that incorporates appropriate values and ensures ethical behavior, including alignment with social norms and contracts, algorithmic responsibility, explanation capabilities, compliance with

existing legislation and policy, assurance of the integrity of the data, algorithms and systems, and protection of privacy and personal information.

To this end, IBM has made great strides, both internally and in collaboration with other AI stakeholders.

In 2016, IBM published one of the first corporate white papers on the ethics of AI: [Learning to trust artificial intelligence systems—Accountability, compliance and ethics in the age of smart machines.](#)

Additionally, IBM has developed the Principles for Transparency and Trust in the Cognitive Era, a document that is useful for any business or organization involved in the development of AI systems and applications. The core of these principles include:

- We believe AI's purpose is to augment human intelligence.
- We will be transparent about when and where AI is being applied, and about the data and

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training that went into its recommendations.

- We believe our clients' data and insights are theirs.
- We are committed to helping students, workers, and citizens acquire the skills to engage safely, securely, and effectively with cognitive systems, and to do the new kinds of work that will emerge in a cognitive economy.

In addition to this work, IBM is a founding member of the [Partnership on AI](#), a collaboration between Amazon, Apple, Facebook, Google, Microsoft, and many scientific and nonprofit organizations. The organization's main goal is to share best practices that encourage AI's ethical development, and to create a forum to discuss and resolve ethical and societal issues raised by the pervasive use of AI in our personal and professional lives. Together, we hope to guide the development of AI to the benefit of society as a whole.

It is no exaggeration to say that in the years ahead, most aspects of work and

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life as we currently know it will be influenced by AI technologies. This technology will help us make more informed decisions. It may even help us avoid our natural cognitive biases and inconsistencies, potentially guiding us toward fairer, more ethical behavior.

This is why developing AI makes us more than computer scientists or business professionals. It makes us all architects of social change. This is a profound and daunting responsibility, but I'm confident that when we move forward together, and AI is thoughtfully created, we will greatly improve the many systems that facilitate life on this planet.