Computational humor is a subfield of natural language processing (NLP) and artificial intelligence (AI) focused on creating algorithms and systems that can understand, generate, and recognize humor. This involves understanding the linguistic and cognitive mechanisms behind humor, as well as the cultural and contextual nuances that make something funny. The goals and applications of computational humor are diverse, ranging from enhancing human-computer interaction by making AI systems more engaging and natural, to analyzing text for humorous content, and even generating jokes or humorous responses in conversational agents.

Key challenges in computational humor include:

1. **Humor Recognition**: Identifying and classifying humorous content in text. This requires understanding of context, double meanings, play on words, or the incongruity that often underlies humor.

2. **Humor Generation**: Creating text that is intended to be funny. This is particularly challenging because it often requires creativity, a deep understanding of language and culture, and the ability to surprise or subvert expectations.

3. **Personalization**: Adjusting humor to fit the preferences, cultural background, and possibly even the current mood of the user, which involves complex modeling of human psychology and sociology.

4. **Evaluation**: Assessing whether generated humor is successful, which can be subjective and varies greatly from person to person. This often involves human feedback or sophisticated metrics that attempt to predict human reactions.

Computational humor interacts with several other areas of AI and linguistics, including machine learning, semantic analysis, and pragmatics, to attempt to tackle these challenges. Despite progress, computational humor remains a difficult area of study due to the highly nuanced, subjective, and culturally specific nature of humor.