

# Proactive CARE for Computing Professionals



ACM Committee on Professional Ethics 2021

When faced with complex situations, ethical issues are certain to arise, and it is helpful to use a guided process that leads to informed decisions among alternative solutions to the situation. Proactive CARE (Consider, Analyze, Review, and Evaluate) is a process that uses a set of questions to help computing professionals think through such issues. Proactive CARE uses the ACM Code of Ethics and Professional Conduct as a framework to identify and address opportunities to engage in more ethical computing practices.

**CONSIDER** who might be affected and how: Whose behavior, circumstances, job, or experiences might be affected positively or negatively by the proposed solution? Who has the ability to act in the current situation? Whose expertise should be part of the project, especially considering expertise in domains other than computing? What possible alternative solutions address different stakeholder needs and impacts? What are the most important consequences (e.g. short-term, long-term, local, global, and environmental) for each of the alternative solutions for each of these stakeholders? How will conflicting stakeholder interests be addressed? Are there historical factors or injustices that are not readily apparent and require heightened consideration? Are there details you should clarify before you decide?

**ANALYZE** the situation's details: For each plausible alternative solution, what stakeholder rights and relationships between stakeholders are likely to be affected? What obligations do you have that are relevant to each of the stakeholders? What stakeholder values are in conflict? What aspects of the Code's guidance are most relevant? (Different principles may be most relevant to different alternatives, both now and in the future.) What technical facts are most relevant to your decision and your system? How might personal, institutional, or legal values influence the choice of possible alternatives? How might the system's design or implementation be improved based on observations so far?

**REVIEW** other obligations and limitations: What responsibilities, authority, practices, or policies seem to be most important to the alternatives in your analysis? Which alternative seems to be the most compelling? If negative consequences are unavoidable, what mitigations need to be enacted to limit this impact? Are there predictable reactions from others that will need to be addressed? Are there other creative alternatives to the ones you've considered so far? (If so loop back to "Consider" and "Analyze" those alternatives before proceeding.) What potential actions might you take to make a positive difference?

**EVALUATE** the best course of action: Which of the alternatives considered seems to be the fairest and just? Will it aid or hinder Code Principles? Are there other Principles in the Code that are relevant to your deliberations about this action? What are the trade-offs and why do they exist? What are the secondary and unintentional effects of the choices you have made? How will you communicate your decisions and changes to the stakeholders? After you have made your decision and after you implement the chosen alternative, how will you monitor the impact over time to help determine if this was a good decision? How will you (and others) judge the quality of this decision when you look back at some time in the future?