Key: ~~Red strikethrough~~ indicates a deletion. *Green italic* indicates an insertion. Blue underline indicates text that was moved.

2018 ACM Code of Ethics and Professional Conduct: Draft ~~1~~	2018 ACM Code of Ethics and Professional Conduct: Draft *2*
Draft ~~1~~ was developed by The Code 2018 Task Force. (It is based on the ~~1992~~ ACM Code of Ethics and Professional Conduct)	Draft 2 was developed by The Code 2018 Task Force. (It is based on the *2018* ACM Code of Ethics and Professional Conduct*: Draft 1*)
Preamble Commitment to ethical conduct is expected of every ACM member. The ACM Code of Ethics and Professional Conduct ("the Code") identifies ~~the~~ elements of ~~such a commitment~~.	**Preamble** The ACM Code of Ethics and Professional Conduct ("the Code") identifies *key* elements of *ethical conduct in computing*.
Improved description of intended applicability Thi~~s~~ Code includes ~~24 imperatives~~ formulated as statements of responsibility. ~~The Code is designed to apply to practicing and aspiring computing professionals.~~ Section 1 outlines fundamental ethical considerations. Section 2 addresses additional, more specific considerations of professional ~~conduct~~. Section 3 pertains more specifically to individuals who have a leadership role, whether in the workplace or in a volunteer professional capacity. Principles involving compliance with thi~~s~~ Code are given in Section 4.	*The Code is designed to support all computing professionals, which is taken to mean current or aspiring computing practitioners as well as those who influence their professional development, and those who use technology in an impactful way.* Th*e* Code includes *principles* formulated as statements of responsibility, *based on the understanding that the public good is always a primary consideration*. Section 1 outlines fundamental ethical considerations. Section 2 addresses additional, more specific considerations of professional *responsibility*. Section 3 pertains more specifically to individuals who have a leadership role, whether in the workplace or in a volunteer professional capacity. Commitment to ethical conduct is required of every ACM member *and* principles involving compliance with the Code are given in Section 4.

Change from "imperative" to "principle" throughout. This reflects the fact that the guidance provided are not rules which must always be obeyed, but principles that must be given due weight when making decisions.

Each ~~imperative~~ is supplemented by guidelines, which provide explanations to assist members in understanding and applying ~~the imperative~~. ~~The Code~~ is intended to serve as a basis for ethical decision making in the conduct of professional work. ~~Secondarily~~, it may serve as a basis for judging the merit of a formal complaint pertaining to a violation of professional ethical standards. The Code as a whole is concerned with how fundamental ethical imperatives apply to one's conduct as a computing professional. ~~The imperatives are expressed in a general form to emphasize that ethical principles which apply to~~ computing professionals are derived from broadly accepted ethical principles.	The Code as a whole is concerned with how fundamental ethical principles apply to one's conduct as a computing professional. Each *principle* is supplemented by guidelines, which provide explanations to assist members in understanding and applying *it. These extraordinary ethical responsibilities of* computing professionals are derived from broadly accepted ethical principles.
The Code is not an algorithm for solving ethical ~~dilemmas~~. Words and phrases in a code of ethics are subject to varying interpretations, and a particular ~~imperative~~ may conflict with other ~~imperatives~~ in specific situations. Questions related to these kinds of conflicts can best be answered by thoughtful consideration of the ~~imperatives and~~ fundamental ethical principles, understanding ~~that~~ the public good is ~~a primary~~ consideration. Paramountcy of the public good has been substantially strengthened.	The Code is not an algorithm for solving ethical *problems, rather* it is intended to serve as a basis for ethical decision making in the conduct of professional work. Words and phrases in a code of ethics are subject to varying interpretations, and a particular *principle* may *seem to* conflict with other *principles* in specific situations. Questions related to these kinds of conflicts can best be answered by thoughtful consideration of the fundamental ethical principles, understanding the public good is *the paramount* consideration. *The entire profession benefits when the ethical decision making process is transparent to all stakeholders. In addition,* it may serve as a basis for judging the merit of a formal complaint pertaining to a violation of professional ethical standards.

Reflects the broadening of applicability from the preamble

Throughout the Code, many instances of "must" or "will" have been changed to "should." This reflects the move from imperatives to principles, and also the broadened applicability of the Code.

1. GENERAL MORAL ~~IMPERATIVES~~	**1. GENERAL MORAL *PRINCIPLES***
~~*As an ACM member I will*~~...	*A computing professional should*...
1.1 Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing ~~and its artifacts~~.	**1.1 Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.**
This principle concerning the quality of life of all people affirms an obligation to protect fundamental human rights and to respect ~~the~~ diversity ~~of all cultures~~. An essential aim of computing professionals is to minimize negative consequences of computing ~~systems~~, including threats to health, safety, personal security, and privacy. ~~When designing or implementing systems~~, computing professionals ~~must attempt to ensure that~~ the products of their efforts will be used in socially responsible ways, will meet social needs, and be broadly accessible.	This principle concerning the quality of life of all people affirms an obligation to protect fundamental human rights and to respect diversity. An essential aim of computing professionals is to minimize negative consequences of computing, including threats to health, safety, personal security, and privacy. Computing professionals *should give consideration to whether* the products of their efforts will be used in socially responsible ways, will meet social needs, and *will* be broadly accessible. *They are encouraged to actively contribute to society by engaging in pro bono or volunteer work. When the interests of multiple groups conflict the needs of the least advantaged should be given increased attention and priority.*
In addition to a safe social environment, human well-being requires a safe natural environment. Therefore, ~~ACM members who design and develop systems must~~ be alert to, and make others aware of, any potential ~~negative impact~~ to the local or global environment.	In addition to a safe social environment, human well-being requires a safe natural environment. Therefore, *computing professionals should* be alert to, and make others aware of, any potential *harm* to the local or global environment.

New! Encouragement of pro-bono work.

New! Emphasis on prioritizing the least advantaged.

1.2 Avoid harm ~~to others~~. ~~"Harm" means injury or negative consequences, such as undesirable loss of information, loss of property, property damage, or unwanted environmental impacts. This principle prohibits using computing in ways that result in harm to users, the general public, employees, employers, and any other stakeholders. Harmful actions include intentional destruction or modification of files and programs leading to serious loss of resources, or unnecessary expenditure of human resources such as the time and effort required to locate malicious software, purge it from systems, and mitigate its effects.~~	**1.2 Avoid harm.** *In this document, "harm" means negative consequences to any stakeholder, especially when those consequences are significant and unjust. Examples of harm include unjustified death, unjustified loss of information, and unjustified damage to property, reputation, or the environment. This list is not exhaustive.* Major simplification and broadening of definition of "harm"
Well-intended actions, including those that accomplish assigned duties, may lead to harm unexpectedly. In such an event, those responsible are obligated to undo or mitigate the ~~negative consequences~~ as much as possible. Avoiding unintentional harm begins with careful consideration of potential impacts on all those affected by decisions ~~made during design, implementation, use, and removal~~.	Well-intended actions, including those that accomplish assigned duties, may unexpectedly lead to harm. In such an event, those responsible are obligated to undo or mitigate the *harm* as much as possible. Avoiding unintentional harm begins with careful consideration of potential impacts on all those affected by decisions.
To minimize the possibility of indirectly harming others, computing professionals ~~must minimize errors by~~ follow~~ing~~ generally accepted best practices for system design, development, and testing. ~~Furthermore, harm can be reduced by assessing the social consequences of systems. If system features are misrepresented to users, coworkers, or supervisors, the individual computing professional~~ is accountable for any resulting harm. Because this is about honesty, was moved to guidance for 1.3, below	To minimize the possibility of indirectly harming others, computing professionals *should* follow generally accepted best practices for system design, development, and testing. *Additionally, the consequences of emergent systems and data aggregation should be carefully analyzed. Those involved with pervasive or infrastructure systems should also consider Principle 3.7.* Increased emphasis on responsibility for indirect harms, harms from emergent phenomena.

~~In the~~ work ~~environment~~, ~~an ACM member~~ has an additional obligation to report any signs of system risks that might result in serious personal or social harm. If one's superiors do not act to curtail or mitigate such risks, it may be necessary to "blow the whistle" to ~~help correct the problem or to~~ reduce ~~the risk~~. However, capricious or misguided reporting of risks can itself be harmful. Before reporting risks, all relevant aspects of the incident ~~must be thoroughly assessed~~ as outlined in ~~imperative~~ 2.5.	*At* work, *a computing professional* has an additional obligation to report any signs of system risks that might result in serious personal or social harm. If one's superiors do not act to curtail or mitigate such risks, it may be necessary to "blow the whistle" to reduce *potential harm*. However, capricious or misguided reporting of risks can itself be harmful. Before reporting risks, *the computing professional should thoroughly assess* all relevant aspects of the incident as outlined in *Principle* 2.5.
1.3 Be honest and trustworthy. Honesty is an essential component of trust. ~~An ACM member will~~ be fair and not make deliberately false or misleading claims and ~~will~~ provide full disclosure of all pertinent system limitations and potential problems. Fabrication ~~and~~ falsification of data are similarly violations of the Code.	**1.3 Be honest and trustworthy.** Honesty is an essential component of trust. *A computing professional should* be fair and not make deliberately false or misleading claims and *should* provide full disclosure of all pertinent system limitations and potential problems. Fabrication *of data*, falsification of data, *and scientific misconduct* are similarly violations of the Code. *One who is professionally dishonest* is accountable for any resulting harm.
~~An ACM member has a duty to~~ be honest about his or her own qualifications, and about any limitations in competence to complete a task. ~~ACM members must~~ be forthright about any circumstances that might lead to conflicts of interest or otherwise tend to undermine the independence of their judgment. Membership in volunteer organizations such as ACM may at times place individuals in situations where their statements or actions could be interpreted as carrying the "weight" of a larger group of professionals. An ACM member ~~will~~ exercise care not to misrepresent ACM or positions and policies of ACM or ~~of~~ any ACM units.	*A computing professional* should be honest about his or her own qualifications, and about any limitations in competence to complete a task. *Computing professionals should* be forthright about any circumstances that might lead to conflicts of interest or otherwise tend to undermine the independence of their judgment. Membership in volunteer organizations such as ACM may at times place individuals in situations where their statements or actions could be interpreted as carrying the "weight" of a larger group of professionals. An ACM member *should* exercise care not to misrepresent ACM, or positions and policies of ACM or any ACM units.

1.4 Be fair and take action not to discriminate ~~unfairly~~. The values of equality, tolerance, respect for others, and ~~the principles of~~ equal justice govern this ~~imperative~~. ~~Unfair~~ discrimination on the basis of age, color, disability, family status, gender identity, military status, national origin, race/ethnicity, religion, sex, sexual orientation, or any other ~~such~~ factor is an explicit violation of ACM policy. New! A clear and direct statement about sexual harassment has been included.	**1.4 Be fair and take action not to discriminate.** The values of equality, tolerance, respect for others, and equal justice govern this *principle*. *Prejudicial* discrimination on the basis of age, color, disability, ethnicity, family status, gender identity, military status, national origin, race, religion *or belief*, sex, sexual orientation, or any other *inappropriate* factor is an explicit violation of ACM policy. *Sexual harassment is a form of discrimination that limits fair access to the spaces where the harassment takes place.*
Inequities between different groups of people may result from the use or misuse of information and technology. ~~In a fair society, all individuals have equal opportunity to participate in, or benefit from, the use of computer resources. However, these ideals do not justify unauthorized use of computer resources, nor do they provide an adequate basis for violation of any other ethical imperatives of this code.~~	Inequities between different groups of people may result from the use or misuse of information and technology. *Technologies should be as inclusive and accessible as possible. Failure to design for inclusiveness and accessibility may constitute unfair discrimination.* New! A clear and direct statement about accessibility and inclusion has been included.
~~1.5 Honor intellectual property rights and give proper credit.~~	***1.5 Respect the work required to produce new ideas, inventions, and other creative and computing artifacts.***
~~ACM members are obligated to protect the integrity of intellectual property, unless there is an overriding ethical reason not to do so. Examples of types of violations include (but are not limited to) misrepresentation of authorship, misrepresentation of the origin or ownership of ideas or work, misappropriation of a commons, unauthorized use, unauthorized copying, unauthorized derivative works, and counterfeiting. In normal circumstances, violations of intellectual property laws pertaining to copyrights, patents, trade secrets, non-disclosure agreements, and license agreements are contrary to the Code. Even when not explicitly barred by law, such violations are contrary to the Code.~~	*The development of new ideas, inventions, and other creative and computing artifacts creates value for society, and those who expend the effort needed for this should expect to gain value from their work. Computing professionals should therefore provide appropriate credit to the creators of ideas or work. This may be in the form of respecting authorship, copyrights, patents, trade secrets, non-disclosure agreements, license agreements, or other methods of attributing credit where it is due.* Rewrite of 1.5 and its guidance to shift from a legal focus to an ethical one. This also removes some US-centric language, and some potential confusion between copyright violation and plagiarism.

~~Fair uses of intellectual property are necessary for the progress of technology in the service of~~ the public good. ~~ACM members~~ should not oppose ~~appropriate fair~~ uses of their intellectual ~~property~~.	*Both custom and the law recognize that some exceptions to a creator's control of a work are necessary to facilitate* the public good. *Computing professionals* should not *unduly* oppose *reasonable* uses of their intellectual *works*.
Efforts to help others by contributing time and energy to projects that help society illustrate a positive aspect of this ~~imperative~~. ~~This~~ includes ~~contributions to projects that are~~ in the public domain, free software, or open source software.	Efforts to help others by contributing time and energy to projects that help society illustrate a positive aspect of this *principle*. *Such efforts* include free and open source software *and other work put* into the public domain. *Computing professionals should avoid* misappropriation of a commons.
1.6 Respect privacy.	**1.6 Respect privacy.**
Many commenters requested a definition of "privacy," but it isn't possible to do that in a short document.	*"Privacy" is a multi-faceted concept and a computing professional should become conversant in its various definitions and forms.*
Technology enables the collection and exchange of personal information quickly, inexpensively, and often without the knowledge of the people affected. ~~ACM members~~ should use ~~this~~ personal data for legitimate ends without violating the ~~privacy~~ rights of individuals and ~~organizations~~. ~~ACM members should therefore implement security measures to maintain the privacy and integrity of personal data~~. This ~~includes~~ taking precautions to ensure the accuracy of data, as well as protecting it from unauthorized access or accidental disclosure to inappropriate individuals. Computing professionals should establish procedures to allow individuals to review their personal data ~~and~~ correct inaccuracies.	Technology enables the collection, *monitoring*, and exchange of personal information quickly, inexpensively, and often without the knowledge of the people affected. *Computing professionals* should use personal data *only* for legitimate ends *and* without violating the rights of individuals and *groups*. This *requires* taking precautions to ensure the accuracy of data, as well as protecting it from unauthorized access or accidental disclosure to inappropriate individuals *or groups*. Computing professionals should establish procedures *that* allow individuals to review their personal data, correct inaccuracies, *and opt out of automatic data collection*.

Only the minimum amount of personal information necessary should be collected in a system. The retention and disposal periods for that information should be clearly defined and enforced, and personal information gathered for a specific purpose should not be used for other purposes without consent of the individual(s). When data collections are merged, ~~ACM members~~ should take special care for privacy. Individuals may be readily identifiable when several data collections are merged, even though those individuals are not identifiable in any one of those collections in isolation.	Only the minimum amount of personal information necessary should be collected in a system. The retention and disposal periods for that information should be clearly defined and enforced, and personal information gathered for a specific purpose should not be used for other purposes without consent of the individual(s). When data collections are merged, *computing professionals* should take special care for privacy. Individuals may be readily identifiable when several data collections are merged, even though those individuals are not identifiable in any one of those collections in isolation.
1.7 Honor confidentiality. ~~The ethical obligation for~~ confidentiality ~~holds~~ unless ~~discharged from such obligations~~ by bona fide requirements of law or by other principles of ~~this~~ Code. User data observed during the normal duties of system operation and maintenance ~~must~~ be treated with strict confidentiality, except in cases where it is evidence for the violation of law, organizational regulations, or ~~this~~ Code. In these cases, the nature or contents of that information ~~must~~ be disclosed ~~only~~ to appropriate authorities. In response to many comments, clarifying that obedience to authority without careful thought is not supported by the Code.	**1.7 Honor confidentiality.** *Computing professionals should protect* confidentiality unless *required to do otherwise* by a bona fide requirement of law or by another principle of *the* Code. User data observed during the normal duties of system operation and maintenance *should* be treated with strict confidentiality, except in cases where it is evidence for the violation of law, of organizational regulations, or of *the* Code. In these cases, the nature or contents of that information *should not* be disclosed *except* to appropriate authorities, *and the computing professional should consider thoughtfully whether such disclosures are consistent with the Code*.
2. ~~MORE SPECIFIC~~ PROFESSIONAL RESPONSIBILITIES ~~*As an ACM member with professional responsibilities I will....*~~	**2. PROFESSIONAL RESPONSIBILITIES** *A practicing computing professional should...* Again reflects the broadening of applicability from the preamble

2.1 Strive to achieve the highest quality in both the process and products of professional work. Computing professionals should insist on high quality work from themselves and from colleagues. Professionals must be cognizant of the serious negative consequences that may result from poor quality. ~~High quality~~ includes respecting the dignity of employers, colleagues, clients, users, and anyone ~~e~~ffected either directly or indirectly by the work.	**2.1 Strive to achieve the highest quality in both the process and products of professional work.** Computing professionals should insist on high quality work from themselves and from colleagues. This includes respecting the dignity of employers, colleagues, clients, users, and anyone affected either directly or indirectly by the work. *High quality process includes an obligation to keep the client or employer properly informed about progress toward completing that project.* Professionals should be cognizant of the serious negative consequences that may result from poor quality *and should resist any inducements to neglect this responsibility.*
2.2 Maintain high standards of professional competence, conduct, and ethical practice. High-quality computing depends on individuals who take personal and organizational responsibility for acquiring and maintaining professional competence. Professional competence ~~includes~~ technical knowledge, awareness of the social context in which the work ~~will~~ be deployed, and competence in recognizing and navigating ethical challenges. Upgrading necessary skills should be ongoing and should include independent study, seminars, conferences, and other informal or formal education. ~~The~~ ACM ~~is~~ committed to encouraging and facilitating those activities.	**2.2 Maintain high standards of professional competence, conduct, and ethical practice.** High quality computing depends on individuals *and teams* who take personal and organizational responsibility for acquiring and maintaining professional competence. Professional competence *starts with* technical knowledge and awareness of the social context in which the work *may* be deployed. *Professional* competence *also requires skill in reflective analysis* for recognizing and navigating ethical challenges. Upgrading necessary skills should be ongoing and should include independent study, conferences, seminars, and other informal or formal education. *Professional organizations, including* ACM, *are* committed to encouraging and facilitating those activities.

"Keep informed" guidance moved up from 2.6

2.3 Know, respect, and apply existing laws pertaining to professional work. ACM members must obey existing ~~local, state, province~~, national, and international laws unless there is a compelling ethical justification not to do so. Policies and procedures of the organizations in which one participates must also be obeyed, but compliance must be balanced with the recognition that sometimes existing laws and rules are immoral or inappropriate and, therefore, must be challenged. Violation of a law or regulation may be ethical when that law or rule has inadequate moral basis or when it conflicts with another law judged to be more important. If one decides to violate a law or rule because it is ~~viewed as~~ unethical, or for any other reason, one must fully accept responsibility for one's actions and for the consequences.	**2.3 Know, respect, and apply existing laws pertaining to professional work.** ACM members must obey existing *regional*, national, and international laws unless there is a compelling ethical justification not to do so. Policies and procedures of the organizations in which one participates must also be obeyed, but compliance must be balanced with the recognition that sometimes existing laws and rules are immoral or inappropriate and, therefore, must be challenged. Violation of a law or regulation may be ethical when that law or rule has inadequate moral basis or when it conflicts with another law judged to be more important. If one decides to violate a law or rule because it is unethical, or for any other reason, one must fully accept responsibility for one's actions and for the consequences.
2.4 Accept and provide appropriate professional review. Quality professional work in computing depends on professional reviewing and critiquing. Whenever appropriate, ~~individual members~~ should seek and utilize peer review, and should provide constructive, critical review of the work of others.	**2.4 Accept and provide appropriate professional review.** Quality professional work in computing depends on professional reviewing and critiquing. Whenever appropriate, *computing professionals* should seek and utilize peer *and stakeholder* review. *Computing professionals* should *also* provide constructive, critical review of the work of others.
2.5 Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.	**2.5 Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.**

~~ACM members must~~ strive to be perceptive, thorough, and objective when evaluating, recommending, and presenting system descriptions and alternatives. Computing professionals are in a position of special trust, and therefore have a special responsibility to provide objective, credible evaluations to employers, clients, users, and the public. When providing evaluations the professional must also identify any relevant conflicts of interest, as stated in ~~imperative~~ 1.3. New! Introduced to help address concerns about AI and machine learning.	*Computing professionals should* strive to be perceptive, thorough, and objective when evaluating, recommending, and presenting system descriptions and alternatives. Computing professionals are in a position of special trust, and therefore have a special responsibility to provide objective, credible evaluations to employers, clients, users, and the public. *Extraordinary care should be taken to identify and mitigate potential risks in self-changing systems. Systems whose future risks are unpredictable require frequent reassessment of risk as the system develops or should not be deployed.* When providing evaluations the professional must also identify any relevant conflicts of interest, as stated in *Principle* 1.3.
As noted in the ~~discussion of imperative~~ 1.2 on avoiding harm, any signs of danger from systems ~~must~~ be reported to those who have opportunity and/or responsibility to resolve them. See the guidelines for ~~imperative~~ 1.2 for more details concerning harm, including the reporting of professional violations.	As noted in the *guidance for Principle* 1.2 on avoiding harm, any signs of danger from systems *should* be reported to those who have opportunity and/or responsibility to resolve them. See the guidelines for *Principle* 1.2 for more details concerning harm, including the reporting of professional violations.
2.6 Accept only those responsibilities for which you ~~are qualified~~, and honor those commitments.	**2.6 Accept only those responsibilities for which you *have or can obtain the necessary expertise*, and honor those commitments.**
A computing professional has a responsibility to evaluate every work assignment. ~~Should~~ the evaluation ~~identify reasons~~ that the project should not be attempted, the professional ~~must~~ disclose ~~those reasons~~ to the employer or client. ~~The assignment should not be accepted unless those reasons are mitigated by changes to the nature of the project.~~	A computing professional has a responsibility to evaluate every *potential* work assignment. *If* the *professional's* evaluation *reveals* that the project *is infeasible, or* should not be attempted *for other reasons*, then *the* professional *should* disclose this to the employer or client, *and decline to attempt the assignment in its current form.*

~~Should the evaluation identify reasons that~~ the professional does not have the expertise to complete the project, the professional ~~must~~ disclose this shortcoming to the employer or client, ~~and request that~~ the project ~~be undertaken by someone with the appropriate qualifications.~~ ~~Should the evaluation identify that the project is theoretically impossible to complete by anyone, the professional must disclose this impossibility to the employer or client and request that the project be dropped or modified in order to make the project theoretically possible.~~	*Once it is decided that a project is feasible and advisable, the professional should make a judgment about whether the project is appropriate to the professional's expertise. If* the professional does not *currently* have the expertise necessary to complete the project the professional *should* disclose this shortcoming to the employer or client. *The client or employer may decide to pursue the project with the professional after time for additional training, to pursue the project with someone else who has the required expertise, or to forego the project.*
~~On some occasions, other ethical principles may take greater priority, and a judgment that a specific assignment should not be performed may not be accepted. Only after serious consideration and with full disclosure of risks and concerns to the employer or client, and having clearly identified one's concerns and reasons for that judgment that failed to result in a change to the nature of the project, should one accept the assignment if one is obligated, by contract or by law.~~ The major underlying principle here is the obligation to accept personal accountability for professional work. The computing professional's ethical judgment should be the final guide in deciding whether to proceed. ~~Regardless of the decision, one must accept the responsibility for the consequences.~~ ~~Computing professionals should ensure that system elements perform as intended. When an ACM member contracts for work with another party, the member has an obligation to keep that party properly informed about progress toward completing that work.~~	The major underlying principle here is the obligation to accept personal accountability for professional work. The computing professional's ethical judgment should be the final guide in deciding whether to proceed. The guidance for Principle 2.6 was particularly long and repetitive. The rewrite is intended to shorten and simplify, but not to significantly alter the meaning.

"Keep informed" guidance moved up to 2.1

2.7 Improve public understanding of computing, related technologies, and their consequences. Computing professionals have a responsibility to share technical knowledge with the public by creating awareness and encouraging understanding of computing, including the impacts of computer systems, their limitations, their vulnerabilities, and opportunities they present. This imperative implies an obligation to counter any false views related to computing.	**2.7 Improve public understanding of computing, related technologies, and their consequences.** Computing professionals have a responsibility to share technical knowledge with the public by creating awareness and encouraging understanding of computing, including the impacts of computer systems, their limitations, their vulnerabilities, and opportunities *that* they present. This imperative implies an obligation to counter any false views related to computing.
2.8 Access computing and communication resources only when authorized to do so. ~~Theft or unauthorized destruction of tangible and electronic property is prohibited by imperative~~ 1.2 — "Avoid harm to others." ~~Trespassing and unauthorized use of a computer or communication system is addressed by this imperative. Trespassing includes accessing communication networks and computer systems, or accounts and/or files within those systems, without authorization to do so.~~ Individuals and organizations have the right to restrict access to their systems so long as ~~they do not violate the discrimination principle~~ (~~see imperative~~ 1.4). No one should access or use another's computer system, software, or data ~~files~~ without permission. One should have appropriate approval before using system resources unless there is an overriding concern for the public good. To support this clause, a computing professional should take appropriate action to secure resources against unauthorized use.	**2.8 Access computing and communication resources only when authorized to do so.** *This principle derives from Principle* 1.2 - "Avoid harm to others." No one should access or use another's computer system, software, or data without permission. One should have appropriate approval before using system resources, unless there is an overriding concern for the public good. To support this clause, a computing professional should take appropriate action to secure resources against unauthorized use. Individuals and organizations have the right to restrict access to their systems and data so long *as the restrictions are consistent with other principles in the Code* (*such as Principle* 1.4).

Eliminates quite a bit of repetition

3. ~~ORGANIZATIONAL~~ LEADERSHIP ~~IMPERATIVES~~ In this section, "leader" means any member of an organization who has ~~leadership or~~ educational responsibilities. These ~~imperatives~~ generally apply to organizations as well as their leaders. ~~"Organizations" are corporations, government agencies, and other "employers," as well as volunteer professional organizations~~. ~~*As an ACM member and an organizational leader, I will....*~~	**3. *PROFESSIONAL* LEADERSHIP *PRINCIPLES*** In this section, "leader" means any member of an organization *or group* who has *influence*, educational responsibilities, *or managerial responsibilities*. These *principles* generally apply to organizations *and groups*, as well as their leaders. *A computing professional acting as a leader should...*
Principle 3.4 was moved up to 3.1, to reflect that it is paramount (compare to paramountcy of public good in Preamble)	**3.*1* Ensure that the public good is a central concern during all professional computing work.** The needs of people—including users, other people affected directly and indirectly, customers, and colleagues—should always be a central concern in professional computing. Tasks associated with requirements, design, development, testing, validation, deployment, maintenance, *end-of-life processes*, and disposal should have the public good as an explicit criterion for quality. Computing professionals should keep this focus no matter which methodologies or techniques they use in their practice.
3.~~1~~ Articulate social responsibilities of members of an organization~~al unit and~~ encourage ~~full~~ acceptance ~~and satisfaction of those responsibilities~~.	**3.*2* Articulate, encourage acceptance *of, and evaluate fulfillment of the* social responsibilities of members of an organization *or group*.**

~~Because~~ organizations ~~have impacts on~~ the public, ~~they must~~ accept responsibilities to society. Organizational procedures and attitudes oriented toward quality, transparency, and ~~toward~~ the welfare of society will reduce harm to members of the public. ~~This serves the public interest and fulfills social responsibility~~. Therefore, ~~organizational~~ leaders ~~must~~ encourage full participation in meeting social responsibilities and ~~quality performance~~.	*Technical* organizations *and groups affect* the public *at large, and their leaders should* accept responsibilities to society. Organizational procedures and attitudes oriented toward quality, transparency, and the welfare of society will reduce harm to members of the public *and raise awareness of the influence of technology in our lives*. Therefore, leaders *should* encourage full participation in meeting social responsibilities and *discourage tendencies to do otherwise*.
3.~~2~~ Manage personnel and resources to design and build systems that enhance the quality of working life. ~~Organizational~~ leaders are responsible for ensuring that ~~(computer)~~ systems enhance, not degrade, the quality of working life. When implementing a system, ~~organizations must~~ consider the personal and professional development, physical safety, psychological well-being, and human dignity of all workers. Appropriate human-computer ergonomic standards should be considered in system design and in the workplace.	**3.*3* Manage personnel and resources to design and build systems that enhance the quality of working life.** Leaders are responsible for ensuring that systems enhance, not degrade, the quality of working life. When implementing a system, *leaders should* consider the personal and professional development, *accessibility*, physical safety, psychological well-being, and human dignity of all workers. Appropriate human-computer ergonomic standards should be considered in system design and in the workplace.
3.~~3~~ Establish appropriate rules for authorized uses of an organization's computing and communication resources and of the information they contain. ~~Organizational~~ leader~~ship has the responsibility to~~ clearly define appropriate and inappropriate uses of organizational computing resources. These rules ~~must~~ be clearly and effectively communicated to those using their computing resources. In addition, ~~the organization must~~ enforce those rules, and take appropriate action when they are violated.	**3.*4* Establish appropriate rules for authorized uses of an organization's computing and communication resources and of the information they contain.** Leaders *should* clearly define appropriate and inappropriate uses of organizational computing resources. These rules *should* be clearly and effectively communicated to those using their computing resources. In addition, *leaders should* enforce those rules, and take appropriate action when they are violated.

3.4 Ensure that the public good is a central concern during all professional computing work. The needs of people — including users, other people affected directly and indirectly, customers, and colleagues — should always be a central concern in professional computing. Tasks associated with requirements, design, development, testing, validation, deployment, maintenance, and disposal should have the public good as an explicit criterion for quality. Computing professionals should keep this focus no matter which methodologies or techniques they use in their practice.	Principle 3.4 was moved up to 3.1, to reflect that it is paramount (compare to paramountcy of public good in Preamble)
3.5 Articulate, apply, and support policies that protect the dignity of users and others affected by computing systems and related technologies. Dignity is the principle that all humans are due respect. This includes the general public's right to autonomy in day-to-day decisions. Designing or implementing systems that deliberately or inadvertently violate, or tend to enable the violation of, the dignity or autonomy of individuals or groups is ethically unacceptable. ~~Computing professionals who are in decision making positions~~ should verify that systems are designed and implemented to protect ~~personal~~ dignity.	**3.5 Articulate, apply, and support policies that protect the dignity of users and others affected by computing systems and related technologies.** Dignity is the principle that all humans are due respect. This includes the general public's right to autonomy in day-to-day decisions. Designing or implementing systems that deliberately or inadvertently violate, or tend to enable the violation of, the dignity or autonomy of individuals or groups is ethically unacceptable. *Leaders* should verify that systems are designed and implemented to protect dignity.
3.6 Create opportunities for members of the organization to learn, respect, and be accountable for the principles, limitations, and impacts of ~~computer~~ systems.	**3.6 Create opportunities for members of the organization *and group* to learn, respect, and be accountable for the principles, limitations, and impacts of systems.**

~~Imperative 3.6~~ complements ~~the imperative~~ on public understanding ~~(imperative 2.7)~~. Educational opportunities are essential to facilitate optimal participation of all organization~~al~~ members. Opportunities ~~must be~~ available to ~~all~~ computing professionals to help them improve their knowledge and skills in professionalism, the practice of ethics, and ~~computing~~, including experiences that familiarize them with the consequences and limitations of particular types of systems. Professionals ~~must~~ know the dangers of ~~building systems around~~ oversimplified models, the improbability of anticipating ~~and designing for~~ every possible operating condition, the inevitability of software errors, the ~~ways in which~~ systems ~~impact and are impacted by~~ the contexts in which they are deployed, and other issues related to the complexity of their profession.	*This principle* complements *Principle 2.7* on public understanding. Educational opportunities are essential to facilitate optimal participation of all organization *or group* members. *Leaders should ensure that* opportunities *are* available to computing professionals to help them improve their knowledge and skills in professionalism, *in* the practice of ethics, and *in their technical specialties*, including experiences that familiarize them with the consequences and limitations of particular types of systems. Professionals *should* know the dangers of oversimplified models, the improbability of anticipating every possible operating condition, the inevitability of software errors, the *interactions of* systems and the contexts in which they are deployed, and other issues related to the complexity of their profession.
3.7 Recognize when computer systems are becoming integrated into the infrastructure of society, and adopt an appropriate standard of care for those systems.	**3.7 Recognize when computer systems are becoming integrated into the infrastructure of society, and adopt an appropriate standard of care for those systems *and their users*.**

~~Computing professionals~~ ~~who~~ develop ~~computer~~ systems that ~~have or may~~ become an important part of the infrastructure of society have a responsibility to be good stewards of that commons. Part of that stewardship requires that computing professionals monitor the level of integration into the infrastructure of society. As the level of adoption changes, there are likely to be changes in the ethical responsibilities of the organization. Continual monitoring of how society is using ~~its computer system~~ will allow the organization to remain consistent with their ethical obligation. Where such standards of care do not exist, there may be a duty to develop ~~one~~.	*Organizations and groups occasionally* develop systems that become an important part of the infrastructure of society. *Their leaders* have a responsibility to be good stewards of that commons. Part of that stewardship requires that computing professionals monitor the level of integration *of their systems* into the infrastructure of society. As the level of adoption changes, there are likely to be changes in the ethical responsibilities of the organization. *Leaders of important infrastructure services should provide due process with regard to access to these services.* Continual monitoring of how society is using *a product* will allow the organization to remain consistent with their ethical obligations *outlined in the principles of the code*. Where such standards of care do not exist, there may be a duty to develop *them*. New! Some platforms are so crucial to everyday life tha loss of access should not be arbitrary.
4. COMPLIANCE WITH THE CODE ~~*As an ACM member I will...*~~ **4.1 Uphold, promote, and respect the principles of ~~this~~ Code.** The future of computing depends on both technical and ethical excellence. ~~ACM members~~ should adhere to the principles expressed in ~~this~~ Code. Each member should encourage and support adherence by all computing ~~practitioners~~.	**4. COMPLIANCE WITH THE CODE** *A computing professional should...* **4.1 Uphold, promote, and respect the principles of *the* Code.** The future of computing depends on both technical and ethical excellence. *Computing professionals* should adhere to the principles expressed in *the* Code. Each *ACM* member should encourage and support adherence by all computing *professionals*. *Computing professionals who recognize breaches of the Code should take whatever actions are within their power to resolve the ethical issues they recognize.* New! Duty to take action.
4.2 Treat violations of ~~this~~ ~~c~~ode as inconsistent with membership in ~~the~~ ACM. If an ACM member does not follow ~~this~~ code membership in ACM may be terminated.	**4.2 Treat violations of *the C*ode as inconsistent with membership in ACM.** If an ACM member does not follow *the* Code, membership in ACM may be terminated.