



Software Engineering

Kapitel 02 – Ethik des Software Engineering

Ethik des Software Engineering

Die Tätigkeit eines Softwaretechniklers umfasst
mehr als die bloße Anwendung technischer Fähigkeiten.

Große internationale Organisationen beschäftigen sich mit dem Thema

- ACM (Association for Computing Machinery)
- IEEE (Institute of Electrical and Electronic Engineers)
- British Computer Society

“Software Engineering Code of Ethics and Professional Practice”

(Link: <https://ethics.acm.org/code-of-ethics/software-engineering-code/>)

Software Engineers shall...:

- Act consistently with public interest
- Accept full responsibility for their own work
- Approve software only if [...] it is safe

Beispiele ethischer Fragestellungen



- i. Ist die Verbreitung von Viren/Trojanern etc. ein ethisches Problem?
- ii. Ist fehlerhafter Code ein ethisches Problem?
- iii. Ist nur schwer lesbarer Code ein ethisches Problem?
- iv. Ist das Unterschätzen der Schwierigkeit eines SW-Projekts ein ethisches Problem?
- v. Ist das Unterschätzen von Kosten eines SW-Projekts ein ethisches Problem?
- vi. Ist es ein ethisches Problem, nicht immer die neuesten Technologien zu nutzen?

Grundlagen - Ethik

ACM/IEEE Code of Ethics beinhaltet 8 Prinzipien (hier gekürzt):

1. Public:

Act consistently with the public interest

- Accept full responsibility for your work,
- Moderate interests of software engineer, employer, client and users,
- Approve software only if it is safe, meets specifications, passes appropriate tests, and does not diminish quality of life, diminish privacy or harm environment

2. Client and Employer:

Act in best interests of client and employer consistent with the public interest

3. Product:

Ensure that products and related modifications meet highest professional standards possible (e.g.: ensure adequate testing, debugging and review)

4. Judgement:

Maintain integrity and independence in professional judgment

[Quelle: <http://www.acm.org/about/se-code>]

[CoE: [aktualisiertes Booklet](#)]

Grundlagen - Ethik

ACM/IEEE Code of Ethics beinhaltet 8 Prinzipien (hier gekürzt):

5. Management:

Managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance

- Ensure realistic quantitative estimates of cost, scheduling, personnel, quality and outcomes

6. Profession:

Advance the integrity and reputation of the profession consistent with the public interest

7. Colleagues:

Be fair to and supportive of their colleagues

8. Self:

Participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession

[Quelle: <http://www.acm.org/about/se-code>]

[CoE: [aktualisiertes Booklet](#)]

Grundlagen - Ethik (Gesamtübersicht)

1. Public:

Act consistently with the public interest

- Accept full responsibility for your work, Moderate interests of software engineer, employer, client and users

2. Client and Employer:

Act in best interests of client and employer consistent with the public interest

3. Product:

Ensure that products meet highest professional standards possible (e.g.: ensure adequate testing, debugging and review)

4. Judgement:

Maintain integrity and independence in professional judgment

5. Management:

Managers subscribe to and promote an ethical approach to the management of software develop. and maintenance

- Ensure realistic quantitative estimates of cost, scheduling, personnel, quality and outcomes

6. Profession:

Advance the integrity and reputation of the profession consistent with the public interest

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i. Ist die Verbreitung von Viren/Trojanern etc. ein ethisches Problem?

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ii. Ist fehlerhafter Code ein ethisches Problem?

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2. Client and Employer:

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4. Judgement:

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iii. Ist nur schwer lesbarer Code ein ethisches Problem?

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8. Self:

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iv. Ist das Unterschätzen der Schwierigkeit eines SW-Projekts ein ethisches Problem?

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Grundlagen - Ethik (Gesamtübersicht)

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v. Ist das Unterschätzen von Kosten eines SW-Projekts ein ethisches Problem?

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Grundlagen - Ethik (Gesamtübersicht)

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vi. Ist es ein ethisches Problem, nicht immer die neuesten Technologien zu nutzen?

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Beispiele für Ethik-Dilemmas



Häufig gerät man in Situationen, in denen Ethikfragen eine Rolle spielen:

Welche Beispiele fallen Ihnen ein?

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-
-
-
-
-

Weitere Beispiele: <http://gewissensbits.gi.de/> (Gesellschaft für Informatik)