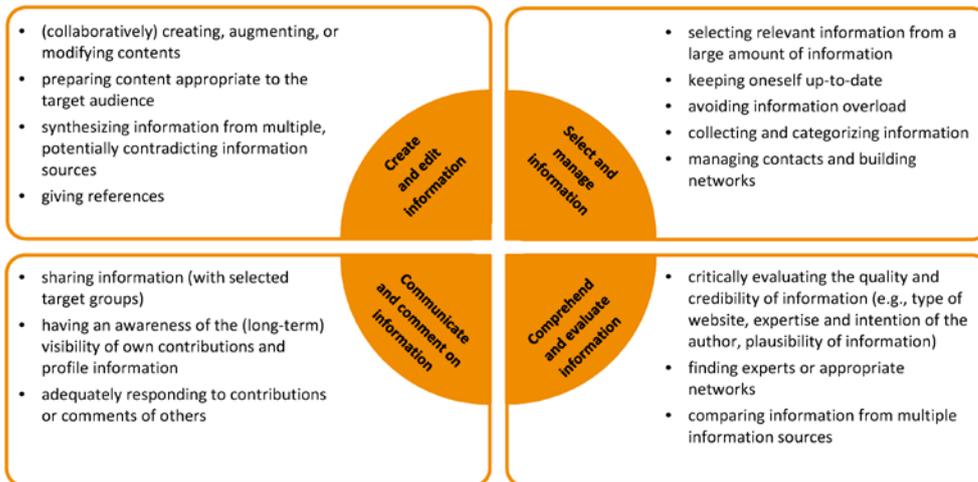


KOMMIT — Vocational IT Students' Social Media Skills

Yvonne Kammerer, Clara Oloff, & Peter Gerjets, {y.kammerer, c.olloff, p.gerjets}@iwm-kmrc.de, www.kommit-projekt.de
Project partners: BITKOM e.V. Berlin, DFKI GmbH Saarbrücken, ifib GmbH Bremen, IMC AG Saarbrücken

A framework of knowledge and skills for a critical use of Social Media



Theoretical basis:

- I. General ICT-Literacy models (e.g., ICILS, Eickelmann & Bos, 2011; iSkills, Katz, 2007)
- II. Models from educational psychology about information problem solving on the internet (e.g., IPS-I model, Brand-Gruwel, Wopereis & Walraven, 2009)
- III. Framework for collaborative problem solving skills (Hesse, Buder & Sassenberg, 2011)
- IV. Operationalization of the 4 skill facets on the basis of psychological theories on knowledge acquisition, knowledge construction, and knowledge exchange

An empirical study to assess Social Media skills

On the basis of the framework, **10 tasks** were constructed (2-3 for each skill facet). These were administered to **N = 124 vocational students** from the IT sector ($M = 20.4$ years, 93.5% male), in order to test their Social Media skills. 34% of the open-ended responses were coded by two independent raters (Cohen's $k = .77-.94$) according to a predefined coding scheme. **In the following, the results of four tasks (1 for each skill facet) are reported:**

Collaboratively creating, augmenting, or modifying contents

- Task:** An example of a wiki article that was collaboratively written and edited by four students was presented. The task was to anticipate potential problems that could occur when several people work together on a wiki article.
 - Results** (max. 6 points, 1 point for each of the following issues):
 - disagreement between co-authors (24%)
 - destructive behaviors, such as simply deleting things (24%)
 - coordination problems (18%)
 - text might lack coherence (26%)
 - text might contain inconsistencies (16%)
 - text might contain duplications (14%)
- 15% 0 points, 50% 1 points, 31% 2 points, 4% 3 points**

Keeping oneself up-to-date

- Task:** „The IT-sector is characterized by constant and rapid developments. What are potential strategies to keep up-to-date about topics in the IT sector by using social media?“
 - Results** (max. 4 points, 1 point for each of the following issues):
 - regularly read blogs, online forums, wikis, and social networking sites or twitter, or watch videos or podcasts (46%)
 - follow individuals or institutions on twitter or facebook (26%)
 - subscribe to websites by using RSS feeds (26%)
 - create an own facebook page or group, where then also other people will post information (6%)
- 25% 0 points, 51% 1 point, 20% 2 points, 4% 3 points**

Awareness of the (long-term) visibility of own contributions

- Task:** An extraction of a facebook newsfeed where several individuals had contributed a post was presented. The task was to indicate which posts shouldn't be posted and why, assuming that these individuals were also friends with some colleagues on facebook.
 - Results** (max. 6 points, 1 point for each of the following issues):
 - no negative comments about own work or workplace (66%)
 - no negative comments about a client (63%)
 - no comments that indicate boredom at work (61%)
 - no postings of pics from company party or of party pics in general (42%)
 - no postings like „Party hard!“ (27%)
 - no posting of the own cell phone number (82%)
- 8% 0 points, 8% 1 point, 14% 2 Punkte, 70% 3 or more points**

Critically evaluating the quality and credibility of information

- Task:** A blog article about health risks of laser printers was presented. A hyperlink on the author's name linked to the information that the author is a PR consultant of a well-known printer company. Students had to argue why they would(n't) use this website for a school assignment. Subsequently, they were directly confronted with the "about the author" page including the information about the author's employment and were asked to rate the author's credibility.
 - Results** (max. 4.5 points, 1 point / 0.5 points for each of the following issues):
 - no source references (27%)
 - author is a PR consultant / article is advertisement (10%)
 - only noticed when directly confronted with the „about the author“ page (30%)
 - search for additional sources to check the veracity of the information (26%)
 - only moderate user ratings (20%), article (too) superficial (11%), argumentation somewhat inconsistent (5%)
- 21% 0 points, 39% 0.5-1 points, 30% 1.5-2 points, 10% 2.5 or more points**

Exploratory factor analysis (PCA, oblimin rotation) with the 10 tasks:

Results: 3 factors (47.9% explained variance):

- Factor 1 (2.39): adequate online communication** (inappropriate forum posts, inappropriate facebook posts, purpose of friends lists)
- Factor 2 (1.38): dealing with multiple authors and sources** (problems when collaboratively writing a wiki article, keep oneself up-to-date, avoid information overload)
- Factor 3 (1.02): source evaluations** (evaluate blog article/author, evaluate user ratings, find experts, give references)

Conclusion: Substantial overlap between theoretically defined skill facets and empirically determined cognitive factors. However, factor 2 comprises two facets: "select and manage" and "create and edit".

Tasks	Factor 1	Factor 2	Factor 3
evaluate blog article/author	.25	.23	.54
evaluate user ratings	-.22	-.31	.87
inappropriate forum posts	.66	-.04	.09
inappropriate facebook posts	.84	-.04	-.05
purpose of friends lists	.55	-.06	-.03
collaboratively write a wiki	.24	.50	.04
give references	.14	.25	.51
find experts	.22	.19	.31
keep oneself up-to-date	-.06	.74	-.02
avoid information overload	-.24	.72	-.03

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General framework:

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Skill facet "select and manage information":

- Pak, R., Pautz, S., & Iden, R. (2007). Information organization and retrieval: An assessment of taxonomical and tagging systems. *Cognitive Technology*, 12, 31–44.
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Skill facet "comprehend and evaluate information":

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Skill facet "communicate and comment on information":

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Skill facet "create and edit information":

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