| Author, Title, Country, Year | Design | Topic | Summary |
|-----------------------------|--------|-------|---------|
| R. McLean et al.: The effect of Web 2.0 on the future of medical practice and education: Darwinian evolution or folksonomic revolution? Australia, 2007 | Description of utilisation | Description of blogs, wikis, podcasting and the use of Web 2.0 tools in general. | Web 2.0 applications are more effective than traditional methods. Web 2.0 stimulates reflection and actively involves students in their own knowledge construction. Students of all age groups learn best when they are integrated into a culturally and socially rich environment that requires the students to reach the same goals. These are important experiences, and Web 2.0 applications have the potential to integrate students into learning teams. |
| J Sandars et al.: Web 2.0 technologies for undergraduate and postgraduate medical education: an online survey England, 2007 | Primary literature for the studies conducted. | Online survey of 3000 students and 3000 doctors using a semi-structured questionnaire on their usage behaviour concerning Web 2.0 technologies. | Everyone uses Web 2.0 technology; however more practice is required for use in teaching. The participants see the main barriers as being individual learning preferences or their aversion to technology. Good quality resources and clear information are needed. Organisational consequences: too little time to become familiar with the new technology; difficulties using it. |
| E.M. Geyer et al.: Isolated to Integrated: An Evolving Medical Informatics Curriculum USA, 2008 | Description of utilisation | An example curriculum for web-based, self-determined learning: Fundamental knowledge and technology are integrated into basic scientific and clinical courses. | 1st and 2nd year: web-based methodologies on literature searches, medication information, EBM, various diagnostic tools, and complementary and alternative medical resources are passed on. 3rd year: using, deducing and evaluating information and knowledge. 4th year: complete integration into other subjects. |
| M. M. Hansen: Versatile, Immersive, Creative and Dynamic Virtual 3-D Healthcare Learning Environment: A review of the Literature USA, 2008 | Description of utilisation | 3-D multimedia virtual world as a learning environment for students, for example “Second Life” (SL). By using audio/video/YouTube, students learn to integrate and use competencies, skills and teamwork in a “safe environment”. | The virtual world is viewed as a protected learning environment in which conflict resolution skills can be increased and fear can be decreased. The environment appears to be highly motivating to the students because of its similarity to everyday life. In this way, active learning is required. |
| J.B. McGree et al.: What medical educators need to know about “Web 2.0” | Description of utilisation | Instructors must know how Web 2.0 influences student communication, its part in forming the educational experience, and how to bring it into their concepts and curricula in a successful manner. | University of Pittsburgh: In the years before the main medical and practical content is taught (1st and 2nd year of medical school in Germany, known as pre-clinical years), the course leaders post comments, and students add questions and thoughts. Podcasts of the lectures are available. Students create their own websites with course-relevant material. Through the interaction with others and the faculty, academic projects are constructed and worked on in small groups, and presentations are created and critically evaluated. University of Edinburgh: Wikis are used for group projects, and blogs are used as reflective diaries. |
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| England, 2008 | | | |
| J. Sandars et al.: Web 2.0 and social software: the medical student way of e-learning | Primary literature for the studies conducted. | Which tools are students using? A comparison of universities on the use of social software. | Frequently used were: Instant messaging, blogs, wikis and media sharing. 75% use social networking. The students would like instant messaging to be integrated. 73% would also like social networking sites and blogs to be part of the study program. |
| England, 2008 | | | |
| K. Chretien et al.: Online Posting of Unprofessional Content by Medical Students | Primary literature for the studies conducted. | Deans were asked about the incidence of unprofessional posts from students in their schools: what was the consequent punishment and what options were available under the politics of the institution. | 60% of participants, overwhelmingly from urban schools; of these, 60% confirmed that inappropriate content was posted. Typical topics areas are: sexual content; negative, discriminating remarks about particular school experiences; drunken students; abuse of patient confidentiality. |
| USA, 2009 | | | |
| T. Lemley et al.: Web 2.0 tools in medical and nursing school curricula | Primary literature for the studies conducted. | How often are Web 2.0 tools used in nursing school, and how does this compare to medical school? | Nursing schools use Web 2.0 tools more often than medical schools, although medical students use Web 2.0 tools for personal reasons more often than nursing students. |
| USA, 2009 | | | |
| L.F. Chu et al.: Learning Management System and Lecture Capture in the Medical Academic Environment | Primary literature for the studies conducted. | Presentation of web-based learning systems: learning management system (LMS) and lecture capture (LC) with advantages and disadvantages, and START: an LMS is a virtual classroom with the advantage that time and place can be decided by the individual. It is logically organised, and material can easily be archived. Mentoring is possible. The disadvantages are that the installation required technical expertise and is costly. |
| USA, 2010 | | interventions study over 10 months, an online learning program with different learning models and teaching styles. Blended learning with virtual mentoring programme and integrated LMS/LC technology. It is based on transparent communication. | LC tools are tools for the instructors. The advantages are evident in the flexibility regarding time and place. The technology has shown to be easy to install and use, and it fulfils the wants and expectations of the students. Disadvantages: Nothing can be done regarding students who resist the installation. START: 100% participated in the programme. It was regarded as helpful and instructive and was fun for the students to learn with. |

| W B Jeffries et al: Speaking of Pharmacology | Description of utilisation | Examples for the use of Web 2.0 Instructors give material out, answer questions, and hold interactive discussions with the students via blogs and wikis. Creating or using videos via YouTube for teaching. Students follow learning events and keep themselves informed in general or about short-notice changes via Twitter. | 4 steps that make the introduction of new media easier: 1) Get away from lectures and move towards dialogue, more interaction. 2) Students are encouraged to think critically. 3) Learning environment is expanded, students are encouraged to work more outside of the university, both on their own and with others. 4) Education can be tailored to the individual learning styles of students. |

| USA, 2010 | Primary literature for the studies conducted. | Medical universities are present in social media. Do these universities explicitly ask their students about social media use? | All American medical universities are represented in the Internet, and nearly all of them are active on Facebook. 10% of the schools are active on Twitter. However, only 10% have formulated guidelines and political orientations regarding the handling of social media. What is forbidden, inappropriate or inadmissible? |

| T. Kind et al.: Social media policies at US medical schools | Primary literature for the studies conducted. | All young graduates were asked whether they had a Facebook account, whether they used data protection measures, and what kind of content they posted to what extent. | A quarter of all young physicians are active on Facebook but don’t use any data protection, thereby offering their information to a wide public audience. The doctor-patient trust can be damaged by this, and the doctor can end up having a bad reputation. Instructors must point out to students the societal change concerning the concepts of public and private. |

| New Zealand, 2010 | Primary literature for the studies conducted. | All young graduates were asked whether they had a Facebook account, whether they used data protection measures, and what kind of content they posted to what extent. | A quarter of all young physicians are active on Facebook but don’t use any data protection, thereby offering their information to a wide public audience. The doctor-patient trust can be damaged by this, and the doctor can end up having a bad reputation. Instructors must point out to students the societal change concerning the concepts of public and private. |
| Authors                        | Title                                                                 | Year  | Description                                                                 | Key Findings                                                                                                                                                                                                 |
|-------------------------------|----------------------------------------------------------------------|-------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T. Varga-Atkins et al.        | Developing professionalism through the use of wikis: A study with first-year undergraduate medical students | England, 2010 | Description of utilisation for the use of wikis in Problem Oriented Learning (POL) | The social learning context of a POL group is important. Students use wikis differently; some use them continually, while others passively follow the posts. Wikis are advantageous for preparing for POL discussions. In institutionally protected networks, students feel that they are being supervised. Students do not make use of the offer. |
| S. Dodson et al.              | Web 2.0 Support for Residents’ and Fellows’ Patient Care and Educational Needs | USA, 2011 | Use of wikis and blogs for deepened learning. Students learn to read, analyse and think more critically, and to write more clearly. Public cooperation takes place. In a social setting, knowledge building occurs publicly rather than individually. | The use of wikis and blogs deepened learning. Students learn to read, analyse and think more critically, and to write more clearly. Public cooperation takes place. In a social setting, knowledge building occurs publicly rather than individually. |
| A. Essary                    | The Impact of Social Media and Technology on Professionalism in medical Education | USA, 2011 | Description of utilisation for the use of wikis and blogs for the generation of current students are frequently called the “Millennium Generation” because they are very technically oriented and have shown a high affinity for social media. | These students are used to quick methods of communication, and they use them. This has implications for the design of lessons, which must be adjusted to the needs and understanding of each generation. However, students should also be informed about how to professionally handle this new media. This involves rules and regulations and the difference between personal and professional use. |
| D.R. George et al.            | Use of social media in graduate-level medical humanities education: Two pilot studies from Penn State College of Medicine | USA, 2011 | Use of social media in elective subjects ... a) for creative writing, discussions with experts were conducted via Twitter and Skype. b) for “the elderly in cultural context”, a video was put together for YouTube with Alzheimer’s groups from different countries. | In both investigations, the tools used were evaluated by the students as above average for quality, course design, and teaching quality. |
| Author(s) | Title | Location | Year | Description of Utilisation | Intervention Details | Study Results |
|-----------|-------|----------|------|----------------------------|----------------------|---------------|
| M. Hansen et al. | Advanced Clinical Skill Centre | USA, 2011 | | Primary literature for the studies conducted. | Learning to place a bladder catheter. The intervention group (IG) received video presentations for a further 3 months. The videos can be accessed via an iPod. | There are no significant results. In the IG, there was a slight improvement in performance after the course and the 3 months. In the control group, there was a slight decline in performance after three months. The participants in the IG had more confidence in their skills as those in the control group. |
| D.M. Hanzel et al. | Web-based Training in German University Eye Hospitals - Education 2.0? | Germany, 2011 | | Primary literature for the studies conducted. | Qualitative and quantitative evaluation of the e-Learning opportunities at German university eye clinics in 2010; focus was on the use of new media. | The Internet was used more as a platform for presentations. Its presentation as a learning centre is under-represented. Many only make case report collections or databases available that are difficult to systematically search. Very seldom is there a check for learning outcomes at the end of a lesson. |
| H. W.W. Potts | Student experiences of creating and sharing material in online learning | England, 2011 | | Primary literature for the studies conducted. | What are the opinions and experiences of students who generate content that is shared via social media with like-minded individuals? | Students have positive opinions, but also have concerns about the creation of the materials. Moodle is used as a virtual environment because it allows the material to be posted more as in a forum rather then as the presentation of a course. Students receive immediate feedback. |
| K.M. Wells | Social media in medical school education | USA, 2011 | | Description of utilisation | How can social media be integrated into medical education? | Depending on the tool, Facebook can be used within the framework of POL, YouTube can be used in the preparation to assist in OPs, and podcasts can be used to catch up on lectures. |