

CIL Teaching Grant Final Report Guidelines

As part of the grant activity, we ask that you submit a final report by Thursday, Dec 15. Your report can be in any format (text, video, PowerPoint, etc.) and should include these elements:

_____ Your revised syllabus

See attached

_____ Your outcome(s)

The greatest emphasis for this course was SLO3:

“Students distinguish between popular and scholarly information sources in order to select the sources whose purpose, authority, and audience are consistent with their information needs.”

They were also required to DO SLO2 and SLO5, and to discuss SLO1 and SLO4 but only SLO3 was explicitly evaluated.

_____ A description of your CIL assignment(s)

CIL component to lecture on the first day of class.

Assignment 1: watch CIL videos from the library website (listed below) and answer questions on blackboard. Class discussion next period

Assignment 2: read a popular and scholarly paper on the same topic, provided, and answer questions on blackboard. Class discussion next period.

Assignment 3: choose a new technology. Find a popular source about that technology. Answer questions on blackboard. Class discussion next period.

Assignment 4: Find a scholarly source about the same new technology. Answer questions on blackboard. Class discussion next period.

Assignment 5: write a short term paper about the new technology they chose, with a second page that is a meta-analysis of the sources they used. See prompt, attached.

Assignment 6: peer review of term papers.

Assignment 7: revise and resubmit term paper.

Assignments 1-6 were auto-graded within blackboard/TurnItIn.

Assignment 7 was manually graded.

List of lab materials you used

Class lecture: “Scientific Studies” segment from *Last Week Tonight with John Oliver*

Assignment 1: Watch these 5 short videos, and then answer the review questions. While you watch each video, pay attention and take some notes. You may want to think about the "consider" questions during or right after watching each video, to help you prepare for the discussion questions you'll answer when you're done watching them.

- Popular and Scholarly Sources Consider: What makes something a scholarly source? How could you identify whether a source is scholarly?
- What's the Deep Web? Consider: Who has access to the deep web? Why does that matter (think about privilege)?
- Peer Review Consider: Why is it important that scholarly sources be reviewed by peers?
- What is “The Literature”? Consider: What kind of information is included in what is called "the literature"?
- Information Economics Consider: What factors determine what information gets published in "the literature"?

Assignments 3&4: library guide for this course.

A description/copy of your assessment tool/strategy

Students were asked to answer a series of questions about critical information as part of Assignment 5: term paper. **See attached prompt, peer review & grading notes.**

Your CIL assessment results

Approximately 85% of the class responded correctly and completely to the CIL meta-analysis portion of their term paper. Among those who did not, many (~8%) just didn't answer the question. Some (~4%) answered the questions correctly but clearly did not understand the concepts since their “scholarly source” was not. The remainder (~3%) answered incompletely or had some incorrect understanding of the difference between scholarly and popular work, or the idea that understanding more about the author can help identify potential biases, or did not correctly explain that they can verify the veracity of news articles by looking at related scholarly sources. **A small sample of student responses are attached.** Others are available.

Your reactions to the experience of integrating CIL into your course, for example: How was student learning impacted by this change?

In general, the term papers were better than usual, especially in that fewer students used sources that were inappropriate for the assignment (not scholarly when they were supposed to be)

What worked?

I think scaffolding was key to the successes of this plan.

What didn't work?

The greatest confusions remaining had to do with the difference between an internet source, a database used to find an article, and a scholarly article that is available online.

How will you refine/revise the assignment for next time?

I will directly address the issue above during the lecture at the beginning of the term, and also discuss the anatomy of a journal article so they have other specific things to look for in differentiating between scholarly journal articles and other types of sources that may also be written by experts. I'd also like to work on making the assignments work better in blackboard. There were some technical issues.

Any suggestions for new materials in the lab?

A dissection of a journal article could be helpful. The one we looked at in the follow-up workshop was useful, but maybe not as detailed as would be ideal.

Your agreement, or not, to post your assignment in the CIL Lab

Its fine with me, but I'm not sure how that would work since it currently exists only as a series of assignments on blackboard. I don't see a way to download the whole assignment to make it available as a document.

An evaluation of the grant activity:

- Did the grant activity meet your expectations?

I didn't have very specific expectations, so yes.

- Were the meetings well structured?

Yes, they were quite useful. It was also really fun to see what other people were doing and how it worked for them.

- Did the materials contribute to your understanding of CIL?
Definitely.

- How could the grant activity be improved?

I could have used more technical support... and I should have asked for it. But if there was someone with expertise with blackboard who was already aware of the program and was explicitly available, that would have been really useful. But I know most people are working with smaller classes where that probably wouldn't be as important.

California State University, San Bernardino
College of Natural Sciences
NSCI 300: Science and Technology
Fall 2016, Section 02

Lecture: MW 4-5:50 pm

Instructor: Dr. Becky C. Talyn

Office Hours: M 3-3:50, by appointment

Location: SB-128

Email: btalyn@csusb.edu

Office Location: CS-207

Course Description

Exploration of the relationship between science & technology and society, including technology's impacts on human societal evolution in the past, present, and future. Consideration of science literacy, agriculture, warfare, medicine and energy. Discussion of contemporary issues such as biotechnology, nuclear technology, the energy crisis, climate change, privacy, and how much technology is too much.

Course Objectives and Student Learning Outcomes

Course Objectives: The relationship between basic science, applied science, and technology is not well understood by most people. Some people have developed mistrust or even a fear of science and technology, yet it is impossible to function in today's society without a dependence on technology. In this course we seek to understand basic science and its relationship to technology in historical, contemporary and future perspectives. At the same time, scientific progress and technological developments depend on and are shaped by social factors. Hopefully students will gain a better understanding and appreciation for how science and technology have changed over time and how dependent we have become on them for our present and future survival.

Student Learning Outcomes: Upon successful completion of this course, students will be able to:

- Follow the historical development of science & technology some major selected advances, and their effects on cultural development.
- Understand the scientific method and the processes of development of science.
- Interpret data presented in the media and analyze the presentation of science and technology in popular and scholarly media.
- Identify the cultural and societal role in the development of science and technology, to understand science as a positional human activity.
- Understand the interrelationships between pure science and technology.
- Describe the importance of scientific concepts in the development of civilization(s).
- Address individuals' responsibility in a scientific and technological society. What does it mean to be a modern human? What are the ethics of technology?
- Study and analyze complex social technological problems that have been created by the rapid growth of science and technology.
- To study and understand the limitation of science and technology.

Course Materials

Readings posted on Blackboard
Numerous videos presented in class
REEF/iClicker account (see below)

Grading

Mid-term exam:	100 pts.
Final exam:	100 pts.
CIL assignments & Term paper:	100 pts.
Participation (16 classes X 5 pts)	80 pts.
Quizzes (2 quizzes X 10 pts):	<u>20 pts.</u>
The Total Points for the course:	400 pts.

The approximate letter grade ranges will be:

A > 372 (93%)	B+ > 348 (87%)	C+ > 308 (77%)	D+ > 268 (67%)	F < 240 (60%)
A- > 360 (90%)	B > 332 (83%)	C > 292 (73%)	D > 252 (63%)	
	B- > 320 (80%)	C- > 281 (70%)	D- > 240 (60%)	

Attendance

Attendance at lecture is the student's responsibility and will affect participation grades. Attendance at exams is mandatory. There will be no makeup exams, except for TRULY EXCEPTIONAL and verifiable circumstances.

Assignments

Exams: Your course grade is based on your performance on two exams. Although the exams are not cumulative by design, an understanding of the material covered in the first part of the course is necessary to understand material covered in later lectures. You will also read several articles from the literature. These articles will be posted on BlackBoard (due to copyright constraints some of the articles may be handed out as hard copy during class). Approximately 10 - 20% of each exam will focus on material from the assigned reading. You should be able to critique the articles, relate the articles to each other and/or relate them to the lecture material. We will discuss the nature of the articles before each exam, but we will not spend much class time discussing them (i.e. YOU need to read them!).

The exams are usually a combination of true-false and multiple choice, but may also include some fill-in-the-blank and short answer questions. Regardless of the type of questions, the exams are designed to make you *think* rather than just regurgitate material. **All lecture, videos and assigned reading material is fair game for the exam**, but most questions focus on topics covered in lecture. Both the "big picture" and the specific details are important to know. We will discuss the nature and content of the exams as they approach.

Cheating will not be tolerated, those found copying from others or using notes during tests will receive zero for that test. Make every possible effort to take the exams at their regularly scheduled time. Attendance at exams is mandatory. There will be no makeup exams, except for TRULY EXCEPTIONAL and verifiable circumstances.

CIL Assignments & Term Paper: In the 21st century, we are constantly bombarded with newly available technologies. Being able to interact with a variety of media types about these new technologies, and develop assessments about those technologies, is a critical skill in the modern world. Using blackboard, you will conduct a series of homework assignments to help you understand the presentation of science in media. Then you apply this understanding to a particular new technology. Finally, you will write a term paper that both discusses the technology that you have chosen and also discusses your interaction with the literature about this technology. At each step, you will answer questions in blackboard and we will have short discussions in class. Some questions will be graded for correctness, but for many you will receive credit for completing the answer. In sum, these assignments are worth as much as an exam, so they should be taken seriously. Individually, most of the assignments will be worth 10 points, with more weight on your term paper itself.

Participation: This class will include a lot of discussion, facilitated by the REEF/iClicker system. There will be 80 points available for attending class on time and fully, and responding to discussion & review questions. Sometimes, these questions will be used to facilitate discussion rather than having right/wrong answers. Other times, the questions will review & assess your understanding of a topic we just discussed. Points will be based on participation in the exercise.

Mini Quizzes: These quizzes will be a fun way to help you prepare for each exam. They'll consist of factual questions based on lectures, readings and videos.

Lecture Schedule

Date	Lecture Topics/Materials	Assignments
Monday, Sept. 26	Introduction to the Course What is science? What is technology?	
Wednesday, Sept. 28	Video 1: Dependence on technology (<i>Connections: The Trigger Effect</i>)	Watch videos and answer discussion questions on blackboard
Monday, Oct. 3	Science & technology, cont.	
Wednesday, Oct. 5	Video 2: Non-linearity of science (<i>Connections: Death in the Morning</i>)	Read 2 articles on blackboard and answer discussion questions
Monday, Oct. 10	Agriculture	
Wednesday, Oct. 12	Video 3: The early development of agriculture (<i>Guns, Germs & Steel</i> , episode 1)	Find a popular article on a new technology, answer discussion questions on blackboard
Monday, Oct. 17	Biotechnology in food	
Wednesday, Oct. 19	Video 4: Introduction to biotechnology (<i>Cosmos 1980: One Voice in the Cosmic Fugue</i>)	Find a scholarly article about your technology, answer discussion questions on blackboard
Monday, Oct. 24	Genetically Modified Food	Start writing term paper
Wednesday, Oct. 26	Catch up Quiz 1: review for the midterm	

Monday, Oct. 31	Midterm exam	
Wednesday, Nov. 2	Weapons, War & Peace	
Monday, Nov. 7	Video 5: Warfare (<i>Guns, Germs & Steel</i> , episode 2)	First draft of term paper due on Blackboard before class time
Wednesday, Nov. 9	Medical technology	
Monday, Nov. 14	Video 6: <i>Business of Being Born</i> (video)	
Wednesday, Nov. 16	Future of medical technology	Peer review due on Blackboard before class time
Monday, Nov. 21	Video 7: <i>Cosmos: A Spacetime Odyssey</i> , episode 12: <i>The World Set Free</i>	
Wednesday, Nov. 23	Energy, Climate Change & Environment	Term paper due on Blackboard before class time
Monday, Nov. 28	Video 8: <i>The Wild Pacific</i> , episode 6: <i>A Fragile Paradise</i>	Readings posted on blackboard (will be questions on final exam)
Wednesday, Nov. 30	Energy, Climate Change & Environment, continued Quiz 2: Review for the final	
Wednesday, Dec. 7	Final exam 4:00-5:50 pm	

Schedule may be changed at any time by the professor to facilitate learning

Oct. 24: Start writing term paper

Term Paper Prompt

We will work on the term paper gradually, with deadlines throughout the quarter. This spreads out your work and gives you feedback to improve your final paper. We will use required peer evaluation and a required second draft to improve your paper. The schedule of assignments is as follows:

Oct. 12	Find a popular article on a new technology, answer discussion questions on blackboard
Oct. 19	Find a scholarly article about your technology, answer discussion questions on blackboard
Oct. 24	Start writing term paper
Nov. 7	First draft of term paper due on Blackboard before class time
Nov. 16	Peer review due on Blackboard before class time
Nov. 23	Term paper due on Blackboard before class time

Select a new technology as the subject of your term paper. Find a popular source (magazine or newspaper article) about that new technology. Also find a scholarly source (peer-reviewed journal article) about one specific aspect of the same new technology. If you wish, you may also include a third source that is from the open web (blog, facebook post, etc.) but this is not required. You should find your popular source and answer the discussion questions about it on blackboard no later than October 19. You should find your popular source and answer the discussion questions on blackboard about it no later than October 26. Please bring the respective papers to class on those dates.

The format of this paper may be different from what you are accustomed to. Please read and follow the directions carefully so that this difference is not detrimental to your grade on the assignment.

Page 1: (2-4 paragraphs, no more than 1 single-space or 2 double-spaced pages) Describe the new technology that you have chosen. Use information from each of your sources, and give attribution appropriately using a standard form of citation (see below). Describe the nature and purpose of the technology. What are the main benefits/advantages of this technology? Do they apply equally to everyone? What are the main costs/disadvantages of this technology? Do they apply equally to everyone? Based on what you know about this technology, who would benefit most from using it? Are there groups in its intended audience who you think might be worse off by using it? What criteria might one use to decide if this particular technology would benefit them? Are there any contradictions between the information in the different sources? If so, try to resolve them.

Page 2: (3-4 paragraphs, one for each source plus a conclusion, no more than 1 single-spaced or 2 double spaced pages) Using critical information literacy language, describe how each of your sources contributed to your understanding of the new technology that you selected. How do the purpose, expertise, authority, review, audience & access of the source affect how, when, where, in what context, and to whom it is useful? What do you know about the authors? How might that affect the content? In the final paragraph, address these questions:

- If there are any contradictions between your sources, which source do you think is more accurate? Why?
- How has this assignment (throughout the quarter) changed your interaction with information that you see in newspapers, magazines, websites and other popular sources?
- What might you do in the future to check the accuracy of a popular source reporting about science?

Page 3: References

Citing Sources: Within the body of your paper, any time you use information or an idea that you got from another source, you need to cite it. You should not use direct quotes unless how an author said something is extremely important. Paraphrase, and give attribution for the information or idea. In-text citations should be in this form (Lead author's last name, year of publication). If there is more than one source for that particular piece of information, list them chronologically, with the most recent one first. On the References page, give the full reference for each of the sources you cited, which should be both/all of them. You may use any standard format (MLA, APA, etc.), and the most important thing is to include all the information in a consistent format so the reader can easily find the information they need. Be sure to include the authors names, the year of publication, the title of the article, the title of the magazine, newspaper or journal it is from, any volume numbers, and page numbers. If it is a web page, you need to include author, date, name of page, name of site if different, and web address. On the reference page, sources should be listed in alphabetical order based on the last name of the first author. If you have any questions ask me, a writing center tutor, or a reference librarian.

Paper Format: Please use a standard 12 pt. font (ex. Helvetica or Calibri), 1 inch margins all around, and dark colored font. On the first page, include a descriptive title for your paper centered at the top. Just below this, include a by-line (i.e. your name as it appears in blackboard). Either indent the first line of each paragraph or separate paragraphs with a blank line. Your paper should be carefully written and appropriate for an upper division college course. Grammar, punctuation, word choice, and clarity are very important. Even if English is your native language, have someone else read your paper to make sure it is well written, clear, interesting and concise. The folks at the writing center are a great choice for this.

This is a short paper, so be very concise... that is, you'll need to include a lot of ideas in a small space. You will need to sacrifice wordiness for depth and breadth of ideas. Feel free to write a longer paper and then cut it down to the required length. This is actually a very useful exercise in business, in academia, and in life.

Save your paper as a .doc, .docx or .pdf format to upload to blackboard. Submit your paper electronically only, using TurnItIn on Blackboard, by the start of class on the due date.

First draft due Nov. 7 before class time. Submit through blackboard only!

Final draft due Nov. 23: Term paper due on Blackboard before class time

Selected Student Responses to CIL Questions in Term Paper

Student 1 – hand selected for a good response

For critical information literacy, the recent (August 2016), popular, openly available newspaper article purposes to provide an introduction to the subject of artificial intelligence, peaking interest, providing entertainment and an overall example and general description of the subject—in a casual format that appeals to the general reader. The author of this popular article was Jason Henry, whose expertise is in reporting and journalism; not an authority or expert in AI specifically. Because the article is accessible anytime, anywhere, to the general public who are subscribed to the San Bernardino County Sun Newspaper and everyone via the open web (vs. the deep web), it is easy to read. It was one-sided: only focusing on the benefits without any research, details, or raw data. The author was not an expert or scholar, it was recent, and not peer-reviewed. This article only focused on the good things about AI because the top priority for this article was to obtain the interest of its readers, instead of talking about the technicalities. Because it was a newspaper article, the information was not too long nor overly detailed. Although I trusted the general ideas about AI and possible applications, the article showed only a small portion of AI capabilities, did not get into specifics like pros and cons, and did not contain real tests nor expert opinions.

For critical information literacy, the scholarly peer-reviewed article from over a year ago (May 2015) contributed to this academically purposed paper by analyzing in detail how deep learning, a specific aspect of AI, works and is still (and may always be) a work-in-progress. This article was received on February 25 and accepted May 1, 2015 by the Nature Publishing Group. This article was only available from the deep web once the publisher, who managed rights through copyright, sold it to the school library database—limiting access to university affiliates. With in-depth scientific research, formalized language and jargon, diagrams, graphs, formulas, and citations, the article intended audience of other experts, researchers, faculty, and students. The authors, Yann LeCun, Yoshua Bengio, and Geoffrey Hinton, are respectably affiliated with Facebook AI research, New York University, Google, the University of Toronto, and the Universite de Montreal. Because the article was written by experts in computer science, contained many details, and was peer reviewed, the information is trustworthy. The 103 works cited list provides attribution to the work of others and records historical record and ongoing conversation related to AI. The fact the article had an accepted date and was placed within a scholarly journal brought credibility to the information it contained, while generating more questions about what the future holds for this technology with expected changes and processes.

Although no blatant written contradiction is readily apparent between sources, the scholarly source is more accurate in terms of detail—especially related to margins of error which the popular article did not address at all—and scope. The popular article was more like an introduction, oversimplified, not explaining the in depth, complex process of deep learning AI. Whereas, the scholarly article further explains, showing application to other areas and deeper impact with future implications. However, the scholarly article's challenging context was easier to navigate after reading the popular article. This assignment has changed my interaction with information from popular sources to realize the information is limited and may be biased. In the future, I may look up the author to check their expertise and authority and find related scholarly article(s) to obtain knowledge of other factors. The scholarly article was necessary to show the reality of what was going on behind the scenes for applications like AUDREY. Popular and scholarly are both necessary, yet incomplete, parts of a joint resource—working best in unison. I have learned to be a critical reader that needs to know my sources and their limitations.

References

- Copeland, Michael. *What's the Difference Between Artificial Intelligence, Machine Learning, and Deep Learning?* NVIDIA. 29 July 2016.
<<https://blogs.nvidia.com/blog/2016/07/29/whats-difference-artificial-intelligence-machine-learning-deep-learning-ai/>>.
- Henry, Jason. *How NASA is using artificial intelligence to save lives of firefighters, first responders*. The San Bernardino County Sun Newspaper. Ed. Frank Pine. 14 August 2016.
<<http://www.sbsun.com/technology/20160814/how-nasa-is-using-artificial-intelligence-to-save-lives-of-firefighters-first-responders>>.
- LeCun, Yann, Yoshua Bengio, and Geoffrey Hinton. *Deep Learning*. Nature 521.7553 (2015): 436-444. Academic Search Premier. Web. 5 November 2016.

Student 2 – randomly selected

My first source was a piece written by Chris Woodford who is a British Science Writer. He runs a website called Explain That Stuff where he describes every possible piece of emerging technology you could think of. His article was very easy to read and had sort broad information about the technology which gave me a robust understanding of the technology. Woodford is a gifted writer in the sense that everything he says in his article is explained intelligently and at the same time is quite simply put so you actually a very concise understanding of the topic, I was very impressed. I feel like this open website makes it easy for anyone who's interested in this to find all this information and consequently find themselves pretty well informed on the topic. My second source, High Fidelity Virtual Reality, is an 18 page publication on virtual reality. It dives deeply into every aspect of Virtual Reality to explain how every part of the technology was developed, how it works, and how they are pieced together to make the virtual reality experience greater than the sum of it's pieces. This article was the product of two professionals coming together in an attempt to create an all inclusive report on Virtual Reality. Stuart Gilson heads the department of optometry and visual science at the Buskerud University College in Kongsberg, Norway. While Andrew Glennerster heads the department of psychology and clinical language sciences at the University of Reading in Earley Gate, Reading, United Kingdom. Their expertise is evident thanks to the vocabulary and level of detail in the article. Their article was published to book 1 of a sort of encyclopedia on Virtual Reality which was published in 2013 and titled "In Virtual Reality" which does to show the level that was written for. The article is difficult to understand and would be more useful to people writing about Virtual Reality in the professional or analytical aspects as opposed to the general public. I think it's safe to assume this piece was targeted to those that have an extensive education in the sciences as it goes into detail on even the most miniscule aspects including how this technology stimulates your senses and comparing it to how your body takes in information from a real life event. With this kind of depth and intricacy in description it's clear to see that they left no stone unturned when looking to provide a top to bottom briefing on every aspect of Virtual Reality imaginable. It's hard to imagine anyone stumbling upon the first book in the encyclopedia and then understanding the text so it's safe to say that this was produced the highest level of professionals looking to study Virtual Reality.

Between the two articles it's pretty safe to say that High Fidelity Virtual Reality written by Stuart Gilson and Andrew Glennerster is the more accurate of the two. Especially since it covers nearly every aspect covered by Chris Woodward in even more detail. I don't think I've ever come across a more informative piece of literature in my life. I don't understand how much more you could write about this technology but apparently there is a whole encyclopedia. I'm glad I looked into this technology because I was already interested in the technology and this assignment happened to be the perfect opportunity for me to inform myself on it. I have done plenty of research papers so this assignment had no effect of how I look up sources or interact with the information found in those sources and in fact not much has changed in my method of searching and finding these articles except my efficiency over the last 6 years of schooling. I feel like I was pretty successful in finding great sources both for my popular and scholarly pieces and I don't need to make any changes to my method. It was a regular type of assignment that I have been doing regularly since the eighth grade.

Works Cited

Woodford, Chris. (2007/2015) Virtual reality. Retrieved from <http://www.explainthatstuff.com/virtualreality.html>. [9/25/2016]

Gilson, S. J. and Glennerster, A. (2012) High Fidelity Virtual Reality In Virtual Reality / Book 1, Dr Christiane Eichenberg (Ed.), In Tech, Rijeka, Croatia (2012)

Student 3 – randomly selected. Did not answer critical literacy questions.

Student 4 – hand selected for a good response.

The study done by Oskui et al. (2016) explained to me how an EEG works and what type of physiology can be tracked using such a technology. It also explained how the data is taken and analyzed and how much work goes into it. Also, I learned specifics about the Autism Spectrum disorders. The purpose, expertise, authority and audience of this article are to expand on previous research and to contribute to the research community. It affects its usefulness only to those involved with this community. The peer review process also affects the usefulness of the article because most people are not versed in biology, psychology and medicine, meaning a general audience is not reached. The authors or contributors of this study are all involved in academia and are from the University of Toronto and also Torontos Health Science Centre.

The article by Muller (2014) explained how a new technology from an EEG can be made simpler and more accessible to the general population by allowing a smaller more portable version of an EEG be made. A computer would do the work and connect patterns from physiological responses and connect diseases to the specific pattern. It also explained costs and the new device itself.

The assignments that we did for this class along with the discussion in class about them, made me realize that there is definitely good to a popular source. Through most of my college experience, library databases have been the go to for resources. We are taught to go for scientific peer review articles and we forget that popular sources have certain advantages that we can apply. A very important example of this would be comprehension, understanding what is being written. If a student has a very strict assignment and does not know much on the subject, reading a popular article on the topic could boost the understanding for when reading the peer reviewed paper. Definitely in the future I will look for both a peer reviewed and popular articles to complete my assignments in hopes that it will boost my knowledge on the subject further and can complete my assignment with more understanding and satisfaction.

Works Cited

Muller, R. T., PhD. (2014, September 18). New EEG Technology Makes for Better Brain Reading. *Psychology Today*. Retrieved November 10, 2016, from <https://www.psychologytoday.com/blog/talking-about-trauma/201409/new-eeeg-technology-makes-better-brain-reading>

Mesbah-Oskui, L., Penna, A., Orser, B. A., & Horner, R. L. (2016). Reduced expression of $\alpha 5$ gabaa receptors elicits autism-like alterations in eeg patterns and sleep-wake behavior. *Neurotoxicology And Teratology*, doi:10.1016/j.ntt.2016.10.009