

History in Focus
**S2 E2 AI and History +
Arms and American Revolutions**

Wednesday, October 4, 2023

Daniel Story

Hey, it's Daniel. Before we get started, I want to point out our new History in Focus listener survey. Now that we have a season of episodes under our belt, we'd love to hear what you think. What do you like? What do you not like so much? What topics would you like to see us cover in future episodes—that sort of thing. We want your perspective so we can continue to improve what we do, making a podcast that we hope is engaging and useful for a variety of listeners interested in the study and practice of history. So if you're up for it, go to historians.org/history-in-focus, click on listener survey, and give us your feedback. And if you do that before October 15th, you can sign up to win some AHA swag. Again, you'll find the survey at historians.org/history-in-focus. We're really looking forward to hearing from you.

Conor Howard

Hello, I'm Conor Howard, and this is *History in Focus*, a podcast of the *American Historical Review*. This is episode 2.2 for October 2023. Today we will hear my conversation with Brian DeLay about his article in the September issue of the *American Historical Review*, titled "The Arms Trade and the American Revolutions." In his article, Brian traces important but underrecognized links between the American, Haitian, and Latin American wars of independence. But first, we will hear from Matt Hermane speaking with Darryl Meadows and Josh Sternfeld, two of the participants in the September issue of the AHR's History Lab titled "Artificial Intelligence and Its Implications for the Present and Future of Historical Research." This forum considers the role which AI has played, and will likely play, in the future for the historical profession. Without further ado, here's Matt.

Matt Hermane

Over the past year or so, perhaps no topic has attracted as much wonder excitement and consternation as has artificial intelligence. While it has fascinated the public, leaders in government, industry, and even the development of AI itself have expressed varying degrees of enthusiasm and reticence for the advance of AI. The introduction of tools like ChatGPT have revealed AI's potential for contributing to even handling itself, activities traditionally carried out by people. In academic circles, much of the conversation has centered around how AI might be used and abused in the classroom. But for more than a decade now, AI-driven systems have

been helping scholars and researchers with, for example, their ability to assist in the identification and analysis of sources and texts. As a new "History Lab" forum asserts, the time is now for historians specifically to acknowledge, understand, and contend with the reality of AI and its significant implications for the profession. I spoke with Darryl Meadows and Joshua Sternfeld, whose "History Lab" forum titled "Artificial Intelligence and Its Implications for the Present and Future of Historical Research" appears in the September issue of the *American Historical Review's* "History Lab." The forum includes essays by Benjamin Schmidt, Lauren Tilton, Matthew L. Jones, Kate Crawford, Joshua Sternfeld, and Meredith Broussard. Here's my conversation with Darryl and Josh.

Maybe I'll just have each of you kind of introduce yourselves.

Darrell Meadows

Sure. So my name is Darrell Meadows, and I'm a social and cultural historian of the French Atlantic world. And I've had a long-standing interest in the ways digital technology is transforming the work of historians

Matt Hermane

And Josh.

Josh Sternfeld

My name is Joshua Sternfeld. And I'm an independent scholar and I have conducted research on historical method historiography, digital history, preservation, archives, and of course, artificial intelligence.

Matt Hermane

I was hoping that maybe you could kind of talk about how the forum came to be sure.

Darrell Meadows

The forum really dates back to around 2016 or so when I was busy organizing a multi-session symposium that was part of the 2018 AHA meeting in DC. Later that spring, after that conference, I received an invitation to contribute something for a new informal series called "History's Evolving Missions in the Digital Age." A few months later, Josh and I were having lunch, as we do, having one of our typically broad ranging conversations about the state of the field in history and its growing engagement with technologies, and, on this occasion, we were focused on numerous challenges that artificial intelligence is going to pose for the future the discipline and, really, the urgent need for training and education about AI with an eye to the

needs of historians. But for me, the question was really, how do we create some sense of urgency around a number of interrelated issues here for historians while recognizing that most historians are only vaguely aware or knowledgeable about this topic? So initially, we, you know, brainstormed how do we want to do this, we thought, you know, a series of exchanges amongst the participants, we developed an elaborate set of questions, sort of categorize along, you know, epistemological concerns, racial and gender bias, historical methods, pedagogy, implications for the future training of historians. But then COVID hit. And so that scheme like immediately proved just to elaborate and unworkable. So we had to switch gears. So we really pared it down and decided just a basic question that we would pose to all of them, which was given your vantage point and your particular expertise, what would you most like for historians, including historians in training to understand about artificial intelligence?

Matt Hermane

You said you started thinking this through back in 2018. And then, of course, COVID hits. And then, of course, since then, really, in the last year, there's been so much talk of AI and the advances have seemed kind of incredible.

Josh Sternfeld

I think the irony of this whole forum that we've put together was that the prevalence of things like ChatGPT hadn't come to the surface; they hadn't made the kind of impact that they have now. What we had realized then, and has only become much more urgent now, is that AI systems are integrated in nearly every facet of our society. And so all historians, regardless of their background, regardless of their specializations, will need to understand, at least at a basic level, what is going on with these systems and how to work with them through the basic practices of history - everything from, you know, what constitutes a collection of evidence, what is evidence? Will data be available, given that so many of these systems operate, you know, behind closed doors? AI systems are a new class of agents. When we're talking about agency, we're talking about the power to define the past. And I think there's a real risk that we as a society are ceding control to allow these systems to define and shape our historical understanding. I see historical practice as a kind of muscle like any other kind of practice. And I think if we begin to see more and more of that power over to these systems, there's a real risk that our historical practice begins to atrophy. So I think there's a real moment here, and this is where the urgency comes from, to ensure that we are protecting our ability, our capacity to write our own histories.

Matt Hermane

Benjamin Schmidt and Lauren Tilton kind of both talk about the advances in AI and the types of challenges that could present to historians. So maybe it would be useful to kind of talk about what kinds of tools we're actually talking about, and how those reflect advances from the types of tools historians may have been working with, say, 10, 12 years ago.

Josh Sternfeld

Well, what's so great about Schmit's and Tilton's essays are their ability to talk about the core activities of of doing history, particularly, for example, you know, search and discovery. How do we discover evidence and gather evidence for our own analysis? You know, AI is, is presenting us new techniques to go beyond simply textual search, for example. And so Tilton talks about using AI for, for visual search, right? You can probe historic newspapers to identify different kinds of images that are embedded within the page, political cartoons, photographs, advertisements. What that really does is it expands the palette of possibilities for how historians can engage historical resources. And that applies, of course, not just to textual materials, like newspapers, but more and more in audio visual materials and the ability to use sophisticated machine-learning algorithms to extract sound data or visual data embedded within moving image as well. And so there's all kinds of really exciting scholarship that is probing these collections of visual and audio visual materials in ways that are allowing us to comprehend and analyze these collections in ways that weren't previously possible.

Darrell Meadows

You know, it's beyond sort of, you know, particular tools to recognizing, as Schmidt would put it, that historians increasingly need additional, or shall we say, a different set of skills. And so how we think about a current generation of, say, graduate instruction, where the acquisition of that recognition, and then the acquisition of that new and different set of skills, it has yet to really come into being

Matt Hermene

I kind of grouped the pieces by Matthew L. Jones and Kate Crawford together, and they both kind of suggest that the way AI learns is something that the historian will need to contend with and think about critically. Matthew L. Jones talks about experiential learning versus data-driven Learning, how does that kind of victory of data-driven Learning change the way we need to think about history going forward?

Josh Sternfeld

If you start to listen to the sort of foundational leaders in the AI field that moved away from symbolic AI to the data-driven AI, they're realizing that the probabilistic approach, the

deep-learning or machine-learning approach has its own deficiencies. And one of those deficiencies is being truthful, being accurate, being factual, and we know so well that, that these systems can produce inaccuracies or what are called hallucinations. And so what they're actually saying is, well, we actually need to go back and think about incorporating more symbolic-AI sort of rules of, of how the world is governed.

Darrell Meadows

You know, not only will historians need to be far more transparent and intentional about their methods and practices, but because AI driven systems are not neutral, as Jones puts it, they direct and misdirect, they guide and misguide, and, as we are just beginning to glimpse, can be actively malevolent, you know, historians must be prepared to understand, critique, and contend with this new reality. The result of this, I think, for Jones, and, you know, and he makes the point, it's sort of another thing that Josh and I began with, which was, you know, historians working on virtually any subject from the 2000s and beyond, it's going to be impossible to detach political, social, and cultural history from the history of AI systems because, to do so, historians will effectively, they will lose sight of major causal forces and intermediaries of our time, which is to say AI systems themselves.

Matt Hermene

Kate Crawford talks about the potential for AI to reproduce biases that will force historians to look at AI critically. But then thinking about more the traditional task of historian to look at sources critically, I guess what separates AI from the traditional source with its own human agent behind it that the historian needs to think about critically?

Josh Sternfeld

What her essay really draws out is the importance of historicizing or contextualizing the underlying training data set of the systems. And sometimes that can seem like a very daunting task. And so she gives the example of Imagenet, which is the sort of core data set that's used for refining computer vision. And we're talking about 14 billion images here. And, you know, historians may, may look at that and say, well, it's too large to contextualize. But if you begin to kind of probe underneath the development of that data set, there are workers tasked with tagging, applying labels to these images, and prejudices and biases are then manifested in how the AI systems are trained.

Darrell Meadows

You know, Kate Crawford, like Matthew Jones, you know, really picks up on the scale and complexity of the problem we face. How will historians continue the essential task of critically

interrogating sources when the sources themselves, whether we're talking about the products or outputs of AI systems, or the training data, or other variously flawed and automatic inputs that shape them, are, in a sense, unstable moving targets. This is also a core theme in Meredith Broussard's piece where she's posing the question, how would it ever be possible for historians or anyone else to study, for example, Google's search algorithm? She sort of shows how that's a near impossibility.

Matt Hermene

Darrell, I'm interested in something you said earlier, you mentioned that there will be more, I think, responsibility on the historian to show a degree of transparency in the way they're interacting with these tools and using and finding sources, really. So I'm wondering if you could talk about maybe a little bit what you think that could end up looking like?

Darrell Meadows

This is a core question that Josh and I were wrestling with over lunch so many years ago. How, how will we be able to tell the world this is how I know what I know when I have studied this phenomena that took place in 2012, you know, in the 2020s, or, you know, whatever it's going to be in the future, if I don't have some understanding of all those basic things that we tend to try to have some understanding about. Other people are going to have their proposals here, but we lay out a few things toward the end of our introduction that that we think historians should be doing now. We are in a the future is now kind of moment. First and foremost, this is something each and every one of our contributors really drive home, historians and students of history should recognize that AI systems are already creating and will continue to create challenges for the present and future of historical research and teaching. Just, it is fundamental. But I think there are some really practical things, you know, that can happen. So, for example, meaningful adaptations or revisions to those standard courses in history pedagogy, including emerging courses in digital history pedagogy, the traditional historiography and methods course, the theory and historical methods course. All of those are greatly in need of updating with consideration of acquiring greater facility and knowledge about AI. And all of the sorts of things and issues that are raised in this forum. Historians should be learning from and collaborating with faculty and experts in the computer sciences, and library and information sciences, and related fields, developing interdisciplinary coursework that builds theoretical and experiential understandings of what AI systems are, how they manifest themselves into systems that historians regularly engage, how AI systems catalyze and amplify bias, and other, you know, epistemological and other challenges that AI systems pose. We also think that historians should collaboratively engage with their colleagues in other disciplines to conduct exploratory research, develop practicum courses

that can identify and test new methods for addressing some of these issues we've been discussing.

Josh Sternfeld

What historians can contribute is the ability to both humanize and what I consider dehumanize these AI systems. All of the decision making all of the the human interactions that go in behind these systems and to understand that it's, it's a really complex network of actions, of decisions, of, of participation by many, many different human actors. But then, on the dehumanizing front, we have to understand that AI systems don't think or don't have the same kind of logic as, as we have. So we arrive at historical context by thinking about human relations about how various different structures within our society are interconnected. That's not all an AI system approaches the same kind of data. And I think the more that we can keep that at the forefront of our minds, I think the more that will help us contextualize these systems going forward.

Matt Hermene

I think that's really well put. So thank you guys very much for taking the time to talk to me today.

Darrell Meadows

Thank you, Matt.

Josh Sternfeld

Thank you, this has really been fun.

Conor Howard

That was Matt Hermene speaking with Darryl Meadows and Josh Sternfeld. The full History Lab Forum can be found in the September issue of the *American Historical Review*. Next up is my conversation with Brian DeLay, Associate Professor and holder of the Preston Hotchkis chair in the History of the United States at the University of California, Berkeley. Brian's article, titled "The Arms Trade and the American Revolutions," examines the ways by which the international arms trade, and the global and imperial politics surrounding it, shaped the outcome and nature of the United States, Haitian, and Latin American wars for independence at the end of the 18th and beginning of the 19th centuries. While historians have long recognized the importance of the intellectual connections between these movements, the material connections have not garnered as much tension. Brian's article challenges us to think more deeply on the importance of foreign allies during armed struggles for independence and freedom.

Welcome on board. Brian, would you like to introduce yourself?

Brian DeLay

Sure. Thank you for having me. My name is Brian DeLay, I teach history at UC Berkeley.

Conor Howard

Would you like to kind of just give a maybe a brief overview of the article itself?

Brian DeLay

Sure. Yeah. I'll try. So the article begins with what's really a basic historical question. And for context, you know, colonialism everywhere requires a managed inequality of firepower.

Conor Howard

Sure.

Brian DeLay

And Europe's American colonies all relied on weapons that were doled out by Empire, to maintain and to extend the, the forms of inequality that made Empire profitable. And so long as white colonists had privileged access to guns and ammunition necessary to secure and to extend their own interests, most of them could ignore the fact that like, you know, most Indigenous people in the hemisphere, and most people of African descent, they too, were subjected to an informal arms control regime. This ad hoc arms control regime provided a backstop for European Empire by leaving American subjects pretty much incapable of either making or buying enough guns and ammunition to equip a successful anti-colonial rebellion. So the question the article tries to answer is how it came to be that hundreds of thousands of people were able to lay hands upon enough arms and ammunition to overthrow European rule in most of the Americas in the late 18th and early 19th centuries. What the article argues is that the answer to that question reveals neglected connections between the North American, Haitian, and the Spanish American wars for independence.

Conor Howard

Brian goes on to reveal but by looking at the material connections between the United States, Haiti, and Latin America, we see additional connections between these republics at the end of the 18th and beginning of the 19th century, which historians commonly overlooked. It was not just shared ideas, that united these young republics. Rather, the movement of goods, particularly war goods, like firearms are an important connection as well.

Brian DeLay

You know, it's a very basic point that these armed insurgencies needed arms. And, you know, another sort of basic point that but I think there's been kind of not sufficiently appreciated and historiography is the fact the basic fact that none of these colonial regions had the capacity to mass produce arms or invasion.

Conor Howard

Right, including the colonies that become the United States.

Brian DeLay

Absolutely, yeah. Yeah, British North America was by contemporary standards, an extraordinarily well armed place. And I think that's true in comparison to almost any colonial population in the western hemisphere with the probable exception of French Canada. So there's a bunch of reasons for this. A colonial enterprise that's going to be dependent significantly on slavery is a colonial enterprise that has to be heavily armed. A colonial enterprise that is highly dependent upon settler colonialism has to be heavily armed, and a colonial enterprise that shares land borders with Imperial rivals, and periodically has engaged in imperial warfare without a professional military large enough to handle that fighting on its own, has to have militias that it can mobilize when needed. So for all these reasons, it's this combination of factors that individually or even maybe one or two of these things is common in many places. But it's the intensity and the collision of all these factors that makes British North America an exceptionally well armed place. But even there, insurgents discovered by late 1776, early 1777, they don't have remotely enough firepower, to successfully secure independence from Great Britain without tapping into the international arms trade.

Conor Howard

Yeah, I loved the anecdote you included about George Washington have is having his men move barrels of sand around so the British spies would think that they had more gunpowder than they actually had access to. So I mean, I think there's room I think, to wonder a little bit though, like you say that we have this convergence of settler colonialism, of slavery, of imperial borders that lead to British North America being especially well armed. But I do wonder, somewhere like New Spain, maybe speak a little bit to maybe it's the policy differences between the British and Spanish empires.

Brian DeLay

So obviously, Spain is required to arm its American colonists for a variety of reasons. Again, many of these places depend on slavery, all of them are built around systems of inequality and coercion that cannot be executed without firearms. But it's also true that there were different kinds of mechanisms for managing colonial inequality in most of Spain's continental colonies, that led to what I think in retrospect, are certainly by European standards, and by British North American standards, we would regard as surprisingly low levels of firearms ownership. It's also the case that if you take a place like Central Mexico, there's a lot at stake in defending the colonial regime. And in fact, that's the one place in the entire Western Hemisphere, where quality gunpowder is mass produced in Chapultepec. Yeah, in Mexico City. But that's a facility

that's totally under control of Imperial Spain, and is used to provide the rest of Spanish America with the gunpowder. So there's nowhere in Spanish America to my knowledge, where the colonial population is as well armed as British North Americans are. And again, it's because of this unique convergence of motivations in British North America. And the fact that Great Britain was the great producer of firearms has an unparalleled industrial capacity. One last point, the Seven Years War ends up delivering an immense amount of guns and ammunition to British North America. And some of that ends up back with the metropole, but much of it stays in the colonies.

Conor Howard

Yeah, so gunpowder is something that comes up quite a bit. You mentioned that Chapultepec was the only site of good gunpowder manufacturer in the Western Hemisphere. But you also mentioned earlier in your article, how British colonialism in India is in part driven by the need for saltpeter. So I was wondering if you could speak to some of the global aspects to this history.

Brian DeLay

Let me begin by just saying that by the middle of the 18th century, most Western powers had a roughly the same formula for gunpowder that was 10% sulfur, 15% charcoal, and 75% saltpeter. So it's sulfur that ignites quickly and initiates the burn; charcoal, which is the primary fuel and was easy enough to make and you could, you could make that in most places; and sulfur was abundant enough on the international market, that it's seldom the limiting factor for anybody. It's saltpeter that is the causes of the problems. Saltpeter is this magic oxidizer that accelerates the charcoal's combustion. Saltpeter itself is not a wildly complicated product to make. But it is extremely difficult to make well in quantity. And in the 18th century, India made more of that than everybody else combined.

Conor Howard

Wow.

Brian DeLay

Yeah, so each year, European captains would sail away from Indian ports with thousands of tons of refined Indian saltpeter in the holds, and Britain's victories in the subcontinent in the 1750s and 1760s meant the Great Britain won control over most of the globe saltpeter production by the end of the Seven Years War.

Conor Howard

Wow.

Brian DeLay

So this is a strategically an enormously consequential development, international competition and powerful well connected European rivals do a number of things to try to soften the blow of this, this geopolitical coup. France, for example, pours a lot of brilliance and resources into programs to refine quality saltpeter and to increase the efficiency of its production. But colonists don't have any of these resources, right? This is their dreams and hopes, in the British North American colonies that the on the eve of the war, that they're going to be able to produce their way out of their problem, both gunpowder and firearms. And it's these are vain hopes, there, there's no point in the war, are they remotely self sufficient either in gunpowder or in firearms. I refer to the situation of the predicament that would be insurgents in the Western Hemisphere find themselves in as being subjected to an informal arms control regime.

Conor Howard

Right.

Brian DeLay

This arms control regime was something that emerged organically as a byproduct of other aspects of European colonialism. And what it ends up meaning practically for Americans who are contemplating the the prospect of an armed insurgency is that they have these this triple problem that they have to try and solve. They need to figure out how to make the right contacts with European producers and the intermediaries that would be necessary to make that happen. They have to figure out how to pay for war material in the middle of an anti-colonial rebellion. And then they have to figure out how to transport both the things they're going to use to pay for this material with and war material back and forth across the ocean in wartime, when none of them have navies. These are all like really huge problems. So figuring out how you're going to crack that problem is something that preoccupies all of these different insurgent efforts.

Conor Howard

I guess, taking the set of massive challenges in mind, and then thinking a couple decades later, after the American Revolution, with the Latin American independence movements, I was wondering if you could maybe outline a little bit how the United States becomes what you refer to as the "Western Hemisphere is indispensable arms dealer."

Brian DeLay

There's an important context to kind of appreciate the dynamic that's going to unfold starting in the 1790s. That is that, in many ways would be insurgents in Spanish America, and especially in Saint-Domingue lack the advantages that their North American counterparts had enjoyed in the 1770s. They don't have remotely as many arms on hand or as much ammunition, they generally, in some cases, like absolutely do not have remotely the same international contacts. And they don't have the same capacity to pay for this material or to engineer the necessary shipping. So there's all kinds of problems.

Conor Howard

Right.

Brian DeLay

And when you reflect that, that's not all that's going on. It's also the case that from the 1790s, through the 1810s, virtually all the weapons that are produced in the world, are going to be sent into the bottomless pit of the French Revolutionary and the Napoleonic Wars. And so there is an unprecedented contraction in the Atlantic World arms market, at precisely the moment, these intrepid insurgents are attempting to wage war in Saint-Domingue and in Spanish America. So all of these things together, I think, would have made it extremely unlikely that independence movements could have possibly prevailed in either of these places, despite the astonishing bravery and ingenuity of their partisans, but for the fact that there was one, there was yet another really important difference between the 1790s and the 1770s. And that is that by the 1790s, there was something new in the Western Hemisphere. There was an independent republic that was unencumbered by colonial anxieties or entanglements that had a huge shipping industry, and it was growing every year. All of these insurgencies had this asset that the British North Americans did not and that is that hemispheric arms dealer.

Conor Howard

That's sort of the the first domino that had to fall to get the the others rolling.

Brian DeLay

That's right. You know, it turns out that in all of these conflicts, there's a certain amount of patronage from foreign powers, and there is a market dynamic. And in the British North American case, it's only this really remarkable decision by France, and by Spain, to secretly arm the American insurgency and then come out, you know, against Great Britain and declare war against Great Britain on behalf of American independence.

Conor Howard

After discussing the importance of the arms trade for the American Revolution, Brian and I discussed the role that it played in the Haitian and Latin American wars of independence, which Brian also discusses at length in his published article. As a closing reflection, Brian notes how the same dynamics surrounding the arms trade differed in the later revolutions in Latin America.

Brian DeLay

They don't have the money to buy these things. They often don't have the shipping to arrange for their transportation, they need help. And one of the things that's most interesting to me is the way in which they deliberately frame their predicament as being analogous to the predicament of the British North Americans again in 1775 1776.

Conor Howard

Makes sense.

Brian DeLay

So as a great quote, the great Mexican scholar and statesman Carlos María de Bustamante, he told his fellow insurgents early in the Spanish American wars for independence that "we must not undertake anything without the help of the Anglo Americans [who] we need to be free, just as they needed the French." So there is a high degree of expectation on the part of many insurgent emissaries and insurgent leaders, and also the Spanish who are watching this whole thing unfold with a lot of horror and anxiety that the United States is going to become arsenal of democracy in the Western Hemisphere. They're going to make it possible to equip all of these places with the war material they need to secure their futures. But this is happening on terms that are profoundly different from those that the United States enjoyed and its own Revolutionary War.

Conor Howard

That was my conversation with Brian DeLay. His full article can be found in the September 2023 issue of the *American Historical Review* alongside the full forum on artificial intelligence, which we heard Matt discuss with Darryl Meadows and Josh Sternfeld at the start of this episode. *History in Focus* is a production of the *American Historical Review*, in partnership with the American Historical Association, and the University Library at the University of California, Santa Cruz. Episode 2.2 was produced by Daniel Story, Matt, Hermene and me, Conor Howard. You can find out more information about this and other episodes at americanhistoricalreview.org. We look forward to seeing you next time on *History in Focus*.