

Why Humanity Needs a Global Archive
www.chia.pitt.edu/about/GlobalArchive.pdf

by Patrick Manning

The Human Community and its Challenges

Seven billion human beings now live on planet Earth. We have counted ourselves, more or less; we have divided ourselves up into nations, each with a flag and a seat at the United Nations; we are connected to each other by a web of electronic communication, sharing weather reports and images of people in every corner of the world. More than before, we recognize ourselves as a single human community.

Our hopes and fears are no longer just about our own families and communities but about humanity as a whole. We have become increasingly aware of the challenges and threats we face. We worry about warfare, about conflict and the exploitation of some groups by others, and about economic crisis. We worry about the interaction of humanity with the natural world that we inhabit—the possibility of disease, and the natural disasters of storms, earthquakes, and droughts. Education has developed impressively, so that our scientists have developed path-breaking knowledge about nuclear physics, plant and animal species, about the genetic basis of biology, and about climate, including the atmosphere and the oceans.

We have learned much about our own human community too, but most of that knowledge is scattered among separate categories. As a result, when we face big questions about the current changes and future prospects for humanity, we still lack an organized base of knowledge about our past. If we think about whether to regulate global financial markets or how to prevent a nuclear war or what sort of governance to plan or how to anticipate new outbreaks of disease, is there not some way that we can gather information about humanity in past times to help us identify the directions of change?

In addition, is there a way to provide information on humanity as a whole that is relevant to ordinary people, and not only to powerful leaders of business, government, and the military? What have been the changes in the lives of children and of women? What is to be the future of those who live in cities as compared with those who live in the countryside? What changes have been taking place in work and culture? The idea of answering such questions, and the hope of developing a picture of the changes in humanity over short times and long times, is not an entirely new idea. But there is a great need today to make a serious attempt to learn about the global patterns in human society.

The Plan for a Global Archive

The idea of a World-Historical Archive has been advanced for the past several years by an interdisciplinary group of researchers. This group, the Collaborative for Historical Information and Analysis, is using new computer

technology, new knowledge in information science, and new cooperation among social-science researchers to build a World-Historical Archive. The Archive will display information on population, society, economics, government, health, and climate for the past four or five centuries—for the world as a whole and all its regions. It can be built because, at last, we have the knowledge and skill to collect the scattered knowledge and build a coherent summary of human society and its change over time.

Why do we need a Global Archive?

This essay focuses on the question of WHY it is worth the effort to invest large amounts of research energy and funding into the creation of a world-historical Archive. This WHY question needs to be discussed and debated not only by specialist researchers but by policy-makers, researchers in every field of social analysis, and by the general public.

The question of why or whether to create a world-historical Archive is arguably one of the most important issues in contemporary education and scholarship on society. That is, should we seek to combine all the different types of learning about the economy, about family life, about individual psychology, about the nature and meaning of culture, and so on? Or should we maintain the separation of the various disciplines and rely on specialized knowledge? The remaining passages of this essay focus principally on this WHY question.

How can we build a Global Archive?

In a separate publication, I address the HOW question of a World-Historical Archive – in an electronic book entitled *Big Data in History*. In it I discuss the many types of scientific and technical work to be completed in creating a global Archive. I show how the different tasks interact with each other and describe the worldwide collaborative network of researchers and analysis that can create and benefit from this world-historical Archive. The work involves finding and incorporating information on many aspects of historical change, making the historical data consistent, calculating regional and global totals, analyzing the results to reveal regional and global patterns, and visualizing the results for the convenience of specialists and also for the general public.

Why study History?

Is history mostly a list of dates, kings, and wars? For many, history has the reputation of being dry-as-dust facts about bygone days. But today, because of the dramatic expansion of knowledge of so many types, history too has expanded and changed. Whenever there is new knowledge about change over time—in geology, medicine, or culture—it becomes part of historical studies. History includes not only changes in trade and politics, but also changes in marriage patterns, the rise of new diseases, changes in animal populations, the history of earthquakes and hurricanes, and changes in education and religion.

If we invest substantially in creating a global Archive, what information will it contain? If we try to add in too much information at first, we will simply have a mess of overlapping data, making it impossible to locate any coherence. Fortunately,

despite the continuing dominance of local specialization in social sciences, there have already been important developments in social science theory and in cross-disciplinary analysis. (For historians to take advantage of the new changes in all fields of knowledge. Humanities (representation). Social science (social groups). Health (human biology). Natural science (natural world). Information science (organization of information). Systems theory.)

Further, historians have a certain strength as active participants in creating a global Archive. Historians are generalists as well as specialists--they combine several sorts of information on the past. Now we can combine more on the past and develop an idea on what changes are most likely for the future, in near or ore distant future

Who will be included in the Archive?

Does the Archive need to be for **all** of the world? Would it be better, instead, to focus simply on the biggest cities and the wealthiest countries, to give an idea of overall human patterns? The CHIA group argues against narrowing the focus in this way. For instance, imagine that we might study the weather only of Canada or only of Germany or South Africa. Such a focus might give excellent local information but would give little warning of climate change coming from other regions. That is, we have learned clearly that the world's weather is a system which, even with all its local variations, is linked in interactions around the planet. Similarly, we must assume that human society is a system which, even with all of its local variations, is linked in interactions around the planet.

For every region, the global Archive must include the poor people and the rural people as well as the wealthy people and the city-dwellers. It must include the perspectives of all of these groups, in order to provide a picture of human society overall and the path of its change. Similarly, our global Archive must make sure to include information on Africa, Asia, Latin America and Caribbean as well as other regions, and it must include the perspectives of people from those regions in its analysis.

What causes changes in society?

The global Archive will document not just facts about the past, but facts about changes and connections in the past. The overall purpose of the Archive is to show the changes in society and to explain how they come about.

What causes change? Is it only powerful leaders who make history? Is it the case that ordinary people leave no impact on the society around them or on the generations that succeed them? Or do ordinary people, in large and small groups, influence society overall? At the level of individuals, historical studies show clearly that individuals at all levels bring about historical change. The agency of the Buddha or Marie Curie or Nelson Mandela may be outsize in comparison to most people, but most people to bring change to the world around them.

In addition to the influence of individuals, social structures and groups bring about change in society. Governments, religious organizations, occupational groups, armies, and ethnic groups influence history and influence each other. Social groups

reflect the collective organization of elites but also the labor unions and sports associations of common people.

Further, natural forces bring about change in society and history. An epidemic or a flood changes society very rapidly, but natural forces also bring gradual change over long periods of time. For instance, the warming of the earth in the seventeenth century enabled agricultural production to expand worldwide. In another case, steady improvements in nutrition have enabled infant mortality to decline over the centuries.

The study of change in the past, therefore, involves a summary and a balance of individual actions, the influence of social forces, and the impact of natural forces. How much change comes from each of these? How rapid is each type of change? The World-historical Archive, in documenting the past of individuals, social patterns, and natural forces, may be able to show how they have interacted to bring about overall change in human society. For instance, it may be that economic life often fluctuated in cycles of roughly a decade, while patterns of political systems change much more slowly (even if office holders shift fairly commonly). The length of a generation – the average number of years between the age of a mother and her children – has been remarkably stable in human society at roughly 27 to 29 years.

How can History help explain social problems?

From all of the factual information collected in history have come some important lessons on social change. Historical studies have disproved the argument that high intelligence is limited to certain leading families. It has disproved the argument that “races” are different types of humans who can be ranked from top to bottom, and has disproved arguments that women were kept firmly under male control until recently. In short, while history still gives much attention to great men, the “great man” theory of history is no longer accepted.

More seriously, historical studies tend to show that social change is complex rather than simple. That is, many factors are significant and no single factor is the principal cause of historical change. History has connected to knowledge about change over time in many fields: change in geology, in biology, study of changing climate. History is telling full stories, with complex factors, lots of interaction, but with overall patterns for each time, each place, and for humanity as a whole.

Does the past matter? One recent lesson combines history and science to give us a clear new perspective. It shows that all humans are a single family, descended from common ancestors within 200,000 years ago. There is great variety within the human community, but the variety is almost equally distributed among us all. “Racial” differences in exterior appearance arose as humans moved into sharply differing environments. But inside we remained the same. Certain human habits and customs – family life, the arts, cuisine, innovation, migration – remained the same for all. **Stages of life, attitudes toward work and leisure. Decoration. Communication in various ways. Representation. Knowledge and passing it on. Reliance on land and waters, hunting and gathering, migration and staying put.**

Who will use the Archive?

The archive is for teachers, students, and the public. Most importantly, the archive is to be accessible to the public, so that all can collect and compare information on the past. CHIA will try to provide information on global patterns as soon as possible. These will help clarify ideas and bring interest. Teachers and students should have access to all. The Archive will make global information available to all. For instance, it will enable people in any region to see where they fit into overall global patterns, both in the past and the present.

The archive is for researchers. Specialized researchers will use advanced techniques to add new information and to analyze the information in the Archive. They will collect data on communities everywhere in the world, and will develop ways to estimate missing data where records do not exist or cannot be found.

Debates.

Yet history is also debate, especially because people look at society and the past from so many different perspectives. History is more than one story – it is the interplay of multiple and colliding stories. Scale and the links of local, regional, and global patterns.

Science and knowledge. Can it serve everyone? It has in health, in communications technology. But in military power? In bank control? **Interactions.**

Why the Archive and CHIA Need Your Help.

The CHIA project requires help from many sources. First, it is costly. We need wide interest to enable spending of scarce funds. Second we need the information that all sorts of historians have. Third, we need common views on the priorities in exploring the past.

Creating a world-historical archive will be a difficult and expensive project. Yet it is likely to improve our knowledge about our society and how it is changing that will enable us to avoid some major disasters. It will also provide basic information of the human community that will simply be of interest to teachers, students, and the public in every area of the world.

One way to support the project is to ask questions about worldwide patterns. Just to stimulate more discussion about global patterns and global social change will help draw attention to construction of the Archive. **Foundation support**

What changes will the Archive reveal?

One type of result that may arise is the degree of continuity in history. That is, despite all the technological advance of recent years, it may be that many patterns in human life repeat themselves, for instance in the recurring fashions in dress and music.

Another type of result will be the many stories of individual factors in history: diseases from influenza to cholera, commodities such as silver, automobiles, rice, wheat, and textiles, whether produced by free or unfree labor. In addition, the Archive will display aggregated data, adding up local data to give regional and ultimately global totals. In government, for instance, the Archive will provide information on local government and its interaction with larger-scale units of government. This reminds us that a single territory can have more than one

government. For climate direct and indirect measures of temperature and precipitation can be added up to provide regional and global climatic patterns.

The biggest advantage of the World-Historical Archive will be the discoveries of interactions and parallels in history, in which all of the factors above connect and change each other.