

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TWITTER, INC.,
Petitioner

- vs. -

YOUTOO TECHNOLOGIES, LLC,
Patent Owner

DECLARATION OF KEVIN C. ALMEROTH, PHD, UNDER 37 C.F.R. § 1.68
IN SUPPORT OF PETITION FOR *INTER PARTIES* REVIEW
OF U.S. PATENT NO. 9,083,997 (CLAIMS 20-35)

TABLE OF CONTENTS

I.	Introduction.....	4
II.	Background and Qualifications	6
III.	Understanding of Patent Law	16
IV.	The '997 Patent.....	19
V.	Level of Ordinary Skill in the Pertinent Art.....	25
VI.	Broadest Reasonable Interpretation.....	27
	A. “linear television program”	28
	B. “user submission[s]”	29
	C. “display elements”	30
VII.	Detailed Invalidity Analysis	31
	A. Ground 1: Claims 20-27, 29, 31-32, and 34-35 are Obvious Over the Combination of Nassiri, Bradford, and Zhu.....	33
	1. The Prior Art References and Motivation to Combine	33
	a) Background on Nassiri.....	33
	b) Background on Bradford	46
	c) Background on Zhu	48
	d) Reasons to Combine Nassiri and Bradford.....	49
	e) Reasons to Combine Nassiri and Zhu.....	51
	2. Unpatentability Analysis of Claims 20-27, 29, 31-32, and 34-35	54
	a) Claim 20.....	54
	b) Claim 21	81

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

c)	Claim 22.....	82
d)	Claim 23.....	83
e)	Claim 24.....	84
f)	Claim 25.....	87
g)	Claim 26.....	87
h)	Claim 27.....	90
i)	Claim 29.....	96
j)	Claim 31.....	97
k)	Claim 32.....	102
l)	Claim 34.....	103
m)	Claim 35.....	105
B.	Ground 2: Claims 28, 30, and 33 are Obvious Over the Combination of Nassiri, Bradford, Zhu, and Tosh.o	106
1.	The Prior Art References and Motivation to Combine	106
a)	Background on Tosh.o.....	106
b)	Reasons to Combine Nassiri and Bradford.....	106
2.	Unpatentability Analysis of Claims 28, 30, and 33.....	107
a)	Claim 28.....	107
b)	Claim 30.....	110
c)	Claim 33.....	111
VIII.	Conclusion	112

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

I, Kevin Almeroth, do hereby declare as follows:

I. INTRODUCTION

I have been retained as an independent expert witness on behalf of Twitter, Inc. (“Twitter”) for the above-captioned Petition for *Inter Partes* Review (“IPR”) of U.S. Patent No. 9,083,997 (“the ’997 Patent”). I am being compensated at my usual and customary rate for the time I spent in connection with this IPR. My compensation is not affected by the outcome of this IPR.

1. I have been asked to provide my opinions regarding whether claims 20-35 (each a “Challenged Claim” and collectively the “Challenged Claims”) of the ’997 Patent are invalid as they would have been obvious to a person having ordinary skill in the art (“POSITA”) as of the earliest claimed priority date. It is my opinion that all of the Challenged Claims would have been obvious to a POSITA after reviewing the prior art discussed below.

2. In preparing this Declaration, I have reviewed:

- a) Ex. 1001, the ’997 Patent;
- b) Ex. 1002, the file history of the ’997 Patent;
- c) Ex. 1003, U.S. Patent No. 8,311,382 (“the ’382 Patent”);
- d) Ex. 1004, the file history of the ’382 Patent;
- e) Ex. 1005, U.S. Patent No. 8,464,304 (“the ’304 Patent”);
- f) Ex. 1006, the file history of the ’304 Patent;

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

g) the prior art references discussed below:

- Ex. 1009, U.S. Patent Publication No. 2012/0254925 to Nassiri (“Nassiri”),
- Ex. 1010, “HTML5 Mastery Semantics, Standards, and Styling” by Bradford *et al.* (“Bradford”),
- Ex. 1012, Excerpts from Webster’s New World Computer Dictionary, Tenth Edition, 2003.
- Ex. 1013, U.S. Patent Publication No. 2010/0180330 to Zhu (“Zhu”), and
- Ex. 1014, U.S. Patent Publication No. 2008/0209451 to Michels (“Michels”).
- Ex. 1017, Stelter, Brian, “Their Pain is His Gain,” The New York Times, August 22, 2010, pages AR15 and AR19, (“Tosh.o”).

3. The ’997 Patent issued on July 14, 2015, from U.S. Patent Appl. No. 13,674,768 (“the ’768 application”), filed on November 12, 2012, and Provisional Application No. 61/644,909, filed on May 9, 2012. The ’768 application is a continuation of U.S. Patent Appl. No. 13/475,765 (“the ’765 application”), filed on May 18, 2012, and which issued as U.S. Patent No. 8,311,382. The face of the ’997 Patent lists Mark A. Harwell, Christopher W. Wyatt, Ryland M. Reed as the

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

purported inventors. Further, the face of the '997 Patent identifies Youtoo
Technologies, LLC as the initial assignee of the '997 Patent.

4. In forming the opinions expressed in this Declaration, I relied upon
my education and experience in the relevant field of art, and have considered the
viewpoint of a POSITA, as of May 9, 2012. I have also considered:

- a) the documents listed above,
- b) any additional documents and references cited in the analysis
below,
- c) the relevant legal standards, including the standard for
obviousness, and
- d) my knowledge and experience based upon my work in this area
as described below.

5. I understand that claims in an IPR are given their broadest reasonable
interpretation in view of the patent specification and the understandings of a
POSITA. I further understand that this is not the same claim construction standard
as one would use in a District Court proceeding.

II. BACKGROUND AND QUALIFICATIONS

6. My qualifications are set forth in my curriculum vitae, a copy of
which is attached as Exhibit 1008. As set forth in my curriculum vitae:

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

7. I am currently a Professor in the Department of Computer Science at the University of California, Santa Barbara. I also hold an appointment and am a founding member of the Computer Engineering (CE) Program. I am a founding member of the Media Arts and Technology (MAT) Program, and the Technology Management Program (TMP). I also served as the Associate Director of the Center for Information Technology and Society (CITS) from 1999 to 2012. I have been a faculty member at UCSB since July 1997.

8. I hold three degrees from the Georgia Institute of Technology: (i) a Bachelor of Science degree in Information and Computer Science (with minors in Economics, Technical Communication, and American Literature) earned in June, 1992; (ii) a Master of Science degree in Computer Science (with specialization in Networking and Systems) earned in June, 1994; and (iii) a Doctor of Philosophy (Ph.D.) degree in Computer Science (Dissertation Title: Networking and System Support for the Efficient, Scalable Delivery of Services in Interactive Multimedia System, minor in Telecommunications Public Policy) earned in June, 1997.

9. One of the major themes of my research has been the delivery of multimedia content and data between computing devices and users. In my research I have looked at large-scale content delivery systems and the use of servers located in a variety of geographic locations to provide scalable delivery to hundreds, even thousands, of users simultaneously. I have also looked at smaller-scale content

delivery systems in which content, including interactive communication like voice and video data, is exchanged between computers and portable computing devices.

As a broad theme, my work has examined how to exchange content more efficiently across computer networks, including the devices that switch and route data traffic. More specific topics include the scalable delivery of content to many users, mobile computing, satellite networking, delivering content to mobile devices, and network support for data delivery in wireless and sensor networks.

10. Beginning in 1992, at the time I started graduate school, the initial focus of my research was the provision of interactive functions (e.g., VCR-style functions like pause, rewind, and fast-forward) for near video-on-demand systems in cable systems, in particular, how to aggregate requests for movies at a cable head-end and then how to satisfy a multitude of requests using one audio/video stream to broadcast to multiple receivers simultaneously. Continued evolution of this research has resulted in the development of new techniques to scalably deliver on-demand content, including audio, video, web documents, and other types of data, through the Internet and over other types of networks, including over cable systems, broadband telephone lines, and satellite links.

11. An important component of my research from the very beginning has been investigating the challenges of communicating multimedia content between computers and across networks. Although the early Internet was used mostly for

text-based non-real time applications, the interest in sharing multimedia content quickly developed. Multimedia-based applications ranged from downloading content to a device to streaming multimedia content to be instantly used. One of the challenges was that multimedia content is typically larger than text only content, but there are also opportunities to use different delivery techniques since multimedia content is more resilient to errors. I have worked on a variety of research problems and used a number of systems that were developed to deliver multimedia content to users.

12. In 1994, I began to research issues associated with the development and deployment of a one-to-many communication facility (called “multicast”) in the Internet (first deployed as the Multicast Backbone, a virtual overlay network supporting one-to-many communication). Some of my more recent research endeavors have looked at how to use the scalability offered by multicast to provide streaming media support for complex applications like distance learning, distributed collaboration, distributed games, and large-scale wireless communication. Multicast has also been used as the delivery mechanism in systems that perform local filtering (i.e., sending the same content to a large number of users and allowing them to filter locally content in which they are not interested).

13. Starting in 1997, I worked on a project to integrate the streaming media capabilities of the Internet together with the interactivity of the web. I developed a project called the Interactive Multimedia Jukebox (IMJ). Users would visit a webpage and select content to view. The content would then be scheduled on one of a number of channels, including delivery to students in Georgia Tech dorms delivered via the campus cable plant. The content of each channel was delivered using multicast communication.

14. In the IMJ, the number of channels varied depending on the capabilities of the server including the available bandwidth of its connection to the Internet. If one of the channels was idle, the requesting user would be able to watch their selection immediately. If all channels were streaming previously selected content, the user's selection would be queued on the channel with the shortest wait time. In the meantime, the user would see what content was currently playing on other channels, and because of the use of multicast, would be able to join one of the existing channels and watch the content at the point it was currently being transmitted.

15. The IMJ service combined the interactivity of the web with the streaming capabilities of the Internet to create a jukebox-like service. It supported true Video-on-Demand when capacity allowed, but scaled to any number of users based on queuing requested programs. As part of the project, we obtained

permission from Turner Broadcasting to transmit cartoons and other short-subject content. We also attempted to connect the IMJ into the Georgia Tech campus cable television network so that students in their dorms could use the web to request content and then view that content on one of the campus's public access channels.

16. More recently, I have also studied issues concerning how users choose content, especially when considering the price of that content. My research has examined how dynamic content pricing can be used to control system load. By raising prices when systems start to become overloaded (i.e., when all available resources are fully utilized) and reducing prices when system capacity is readily available, users' capacity to pay as well as their willingness can be used as factors in stabilizing the response time of a system. This capability is particularly useful in systems where content is downloaded or streamed on-demand to users.

17. Starting in 1998, I published several papers on my work to develop a flexible, lightweight, battery-aware network protocol stack. The lightweight protocols we envisioned were similar in nature to protocols like Universal Plug and Play (UPnP) and Digital Living Network Alliance (DLNA).

18. From this initial work, I have made wireless networking—including ad hoc, mesh networks and wireless devices—one of the major themes of my research. One topic includes developing applications for mobile devices, for example, virally exchanging and tracking “coupons” through “opportunistic

contact” (i.e., communication with other devices coming into communication range with a user). Other topics include building network communication among a set of mobile devices unaided by any other kind of network infrastructure. Yet another theme is monitoring wireless networks, in particular different variants of IEEE 802.11 compliant networks, to (i) understand the operation of the various protocols used in real-world deployments, (ii) use these measurements to characterize use of the networks and identify protocol limitations and weaknesses, and (iii) propose and evaluate solutions to these problems. These two problem domains together formed the basis for my ongoing work in social networking: exploring the use of nearly ubiquitous network access with readily accessible mobile devices to create new communities and new modes of social interaction.

19. Protecting networks, including their operation and content, has been an underlying theme of my research almost since the beginning. Starting in 2000, I have also been involved in several projects that specifically address security, network protection, and firewalls. After significant background work, a team on which I was a member successfully submitted a \$4.3M grant proposal to the Army Research Office (ARO) at the Department of Defense to propose and develop a high-speed intrusion detection system. Once the grant was awarded, we spent several years developing and meeting the milestones of the project. I have also

used firewalls in developing techniques for the classroom to ensure that students are not distracted by online content.

20. As an important component of my research program, I have been involved in the development of academic research into available technology in the market place. One aspect of this work is my involvement in the Internet Engineering Task Force (IETF) including many content delivery-related working groups like the Audio Video Transport (AVT) group, the MBone Deployment (MBONED) group, Source Specific Multicast (SSM) group, the Inter-Domain Multicast Routing (IDMR) group, the Reliable Multicast Transport (RMT) group, the Protocol Independent Multicast (PIM) group, etc. I have also served as a member of the Multicast Directorate (MADDOGS), which oversaw the standardization of all things related to multicast in the IETF. Finally, I was the Chair of the Internet2 Multicast Working Group for seven years.

21. I am an author or co-author of approximately 200 technical papers, published software systems, IETF Internet Drafts and IETF Request for Comments (RFCs). A list of these papers is included in my CV.

22. My involvement in the research community extends to leadership positions for several journals and conferences. I am the co-chair of the Steering Committee for the ACM Network and System Support for Digital Audio and Video (NOSSDAV) workshop and on the Steering Committees for the

International Conference on Network Protocols (ICNP), ACM Sigcomm
Workshop on Challenged Networks (CHANTS), and IEEE Global Internet (GI)
Symposium. I have served or am serving on the editorial boards of IEEE/ACM
Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE
Transactions on Networks and System Management, IEEE Network, ACM
Computers in Entertainment, AACE Journal of Interactive Learning Research
(JILR), and ACM Computer Communications Review.

23. Furthermore, in the courses I teach, the class spends significant time
covering all aspects of the Internet including each of the layers of the Open System
Interconnect (OSI) protocol stack commonly used in the Internet. These layers
include the physical and data link layers and their handling of signal modulation,
error control, and data transmission. I also teach DOCSIS, DSL, and other
standardized protocols for communicating across a variety of physical media
including cable systems, telephone lines, wireless, and high-speed Local Area
Networks (LANs). I teach the configuration and operation of switches, routers, and
gateways including routing and forwarding and the numerous respective protocols
as they are standardized and used throughout the Internet. Topics include a wide
variety of standardized Internet protocols at the Network Layer (Layer 3),
Transport Layer (Layer 4), and above.

24. In addition, I co-founded a technology company called Santa Barbara Labs that was working under a sub-contract from the U.S. Air Force to develop very accurate emulation systems for the military's next generation internetwork. Santa Barbara Labs' focus was in developing an emulation platform to test the performance characteristics of the network architecture in the variety of environments in which it was expected to operate, and in particular, for network services including IPv6, multicast, Quality of Service (QoS), satellite-based communication, and security. Applications for this emulation program included communication of a variety of multimedia-based services.

25. In addition to having co-founded a technology company myself, I have worked for, consulted with, and collaborated with companies such as IBM, Hitachi Telecom, Digital Fountain, RealNetworks, Intel Research, Cisco Systems, and Lockheed Martin.

26. I am a Member of the Association of Computing Machinery (ACM) and a Fellow of the Institute of Electrical and Electronics Engineers (IEEE). Additional details about my employment history, fields of expertise, and publications are further included in my curriculum vitae.

III. UNDERSTANDING OF PATENT LAW

27. I am not an attorney. For the purposes of this declaration, I have been informed about certain aspects of the law that are relevant to my opinions. My understanding of the law was provided to me by Petitioner's attorneys.

28. I understand that prior art to the '997 Patent includes patents and printed publications in the relevant art that predate the priority date of the '997 Patent. For purposes of this Declaration, I have applied the date of May 9, 2012, the filing date of the provisional application that resulted in the '997 Patent, as the priority date.

29. I understand that a claim is invalid if it would have been obvious. Obviousness of a claim requires that the claim would have been obvious from the perspective of a POSITA at the time the alleged invention was made. I understand that a claim could have been obvious from a single prior art reference or from a combination of two or more prior art references.

30. I understand that an obviousness analysis requires an understanding of the scope and content of the prior art, any differences between the alleged invention and the prior art, and the level of ordinary skill in evaluating the pertinent art.

31. I further understand that a claim would have been obvious if it unites old elements with no change to their respective functions, or alters prior art by

mere substitution of one element for another known in the field and that combination yields predictable results. Also, I understand that obviousness does not require physical combination/bodily incorporation, but rather consideration of what the combined teachings would have suggested to persons of ordinary skill in the art at the time of the alleged invention. I understand that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.

32. I further understand that a claim would have been obvious if it unites old elements with no change to their respective functions, or alters prior art by mere substitution of one element for another known in the field and that combination yields predictable results. While it may be helpful to identify a reason for this combination, I understand that there is no rigid requirement of finding an express teaching, suggestion, or motivation to combine within the references. When a product is available, design incentives and other market forces can prompt variations of it, either in the same field or different one. If a POSITA can implement a predictable variation, obviousness likely bars its patentability. For the same reason, if a technique has been used to improve one device and a POSITA would recognize that it would improve similar devices in the same way, using the technique would have been obvious. I understand that a claim would have been

obvious if common sense directs one to combine multiple prior art references or add missing features to reproduce the alleged invention recited in the claims.

33. I further understand that certain factors may support or rebut the obviousness of a claim. I understand that such secondary considerations include, among other things, commercial success of the patented invention, skepticism of those having ordinary skill in the art at the time of invention, unexpected results of the invention, any long-felt but unsolved need in the art that was satisfied by the alleged invention, the failure of others to make the alleged invention, praise of the alleged invention by those having ordinary skill in the art, and copying of the alleged invention by others in the field. I understand that there must be a nexus—a connection—between any such secondary considerations and the alleged invention. I also understand that contemporaneous and independent invention by others is a secondary consideration tending to show obviousness.

34. I am not aware of any allegations by the named inventors of the '997 Patent or any assignee of the '997 Patent that any secondary considerations tend to rebut the obviousness of any Challenged Claim of the '997 Patent.

35. I understand that in considering obviousness, it is important not to determine obviousness using the benefit of hindsight derived from the patent being considered.

36. I understand that other challenges to the validity of a patent, including patent ineligibility, enablement, written description, and definiteness, cannot be raised in *inter partes* review proceedings before the Board to challenge the validity of the '997 Patent. Accordingly, I did not consider those other challenges.

37. I understand that Petitioner has the burden of proving unpatentability by a preponderance of evidence, which means that the claims are more likely than not invalid.

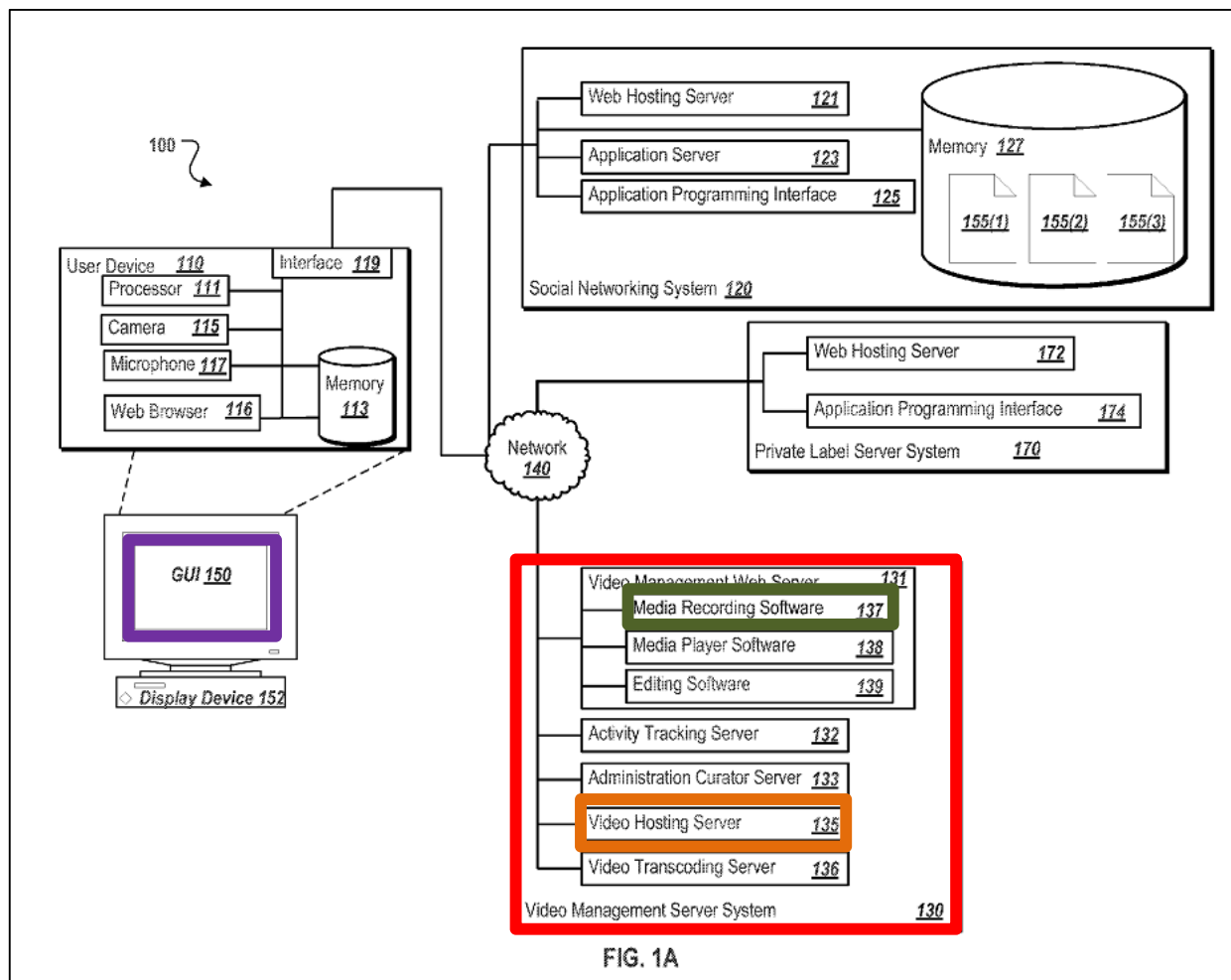
38. The analysis in this declaration is in accordance with the above-stated legal principles.

IV. THE '997 PATENT

39. The '997 Patent is titled "Recording and Publishing Content On Social Media Websites" and was issued on July 14, 2015. The '997 Patent describes in its background how "[n]etwork technologies enable various types of remote human interaction. For example, people may use text messaging or audio or video content for remote chatting, reporting, conferencing, etc." Ex. 1001, 1:22-25. These "communications may relate to television programs that the participants may view." Ex. 1001, 1:31-32. The '997 Patent also acknowledges the development of standards to "distribute television programming using 'live' IP-multicast or IP unicast streams that can be received by anyone with any type of broadband data connection to the Internet." Ex. 1001, 1:59-62.

40. As of the '997 Patent's 2012 priority date, the Internet and the World Wide Web were well-developed and highly commercialized, with a variety of video services available to users worldwide. YouTube, as one example, was considered a popular website for sharing user-generated videos. YouTube allowed users to upload their videos for other users to view, comment on, and rate.

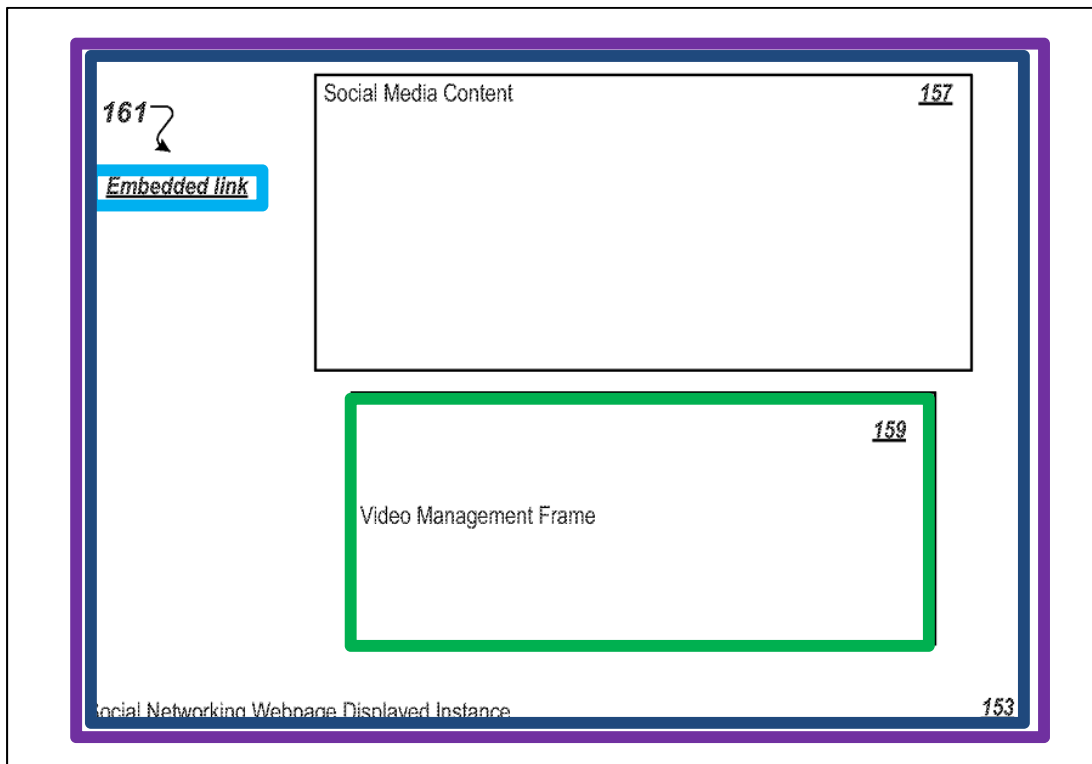
41. The basic idea of the '997 Patent is to record and share a video. Ex. 1001, Abstract. It achieves this by using a **video management server** to provide an **embedded link** on a **webpage** provided by a server, which in some instances is a social networking server. Clicking the embedded link invokes **media recorder software** running on the video management server to display a **media recorder interface** within a **displayed instance** of the **webpage**. **Controls** included in the video recorder interface allow a user to capture and transmit a video stream to the video management server, which **stores** the video as a file. Ex. 1001, 14:32-34. Figures 1A and 1B below show this arrangement:



42. Figure 1A above shows “a functional block diagram of an architecture 100 for embedding a media recorder in a social networking website.” Ex. 1001, 6:45-47. The architecture 100 includes a user device 110, a social networking system 120 and a video management server 130. *Id.*, 6:46-49. Communication between devices 110, 120, and 130 is performed via network 140. *Id.*, 6:51-54. According to the ’997 Patent, the “the social networking system 120 provides one or more social networking webpages 155(1), 155(2), 155(3) to the user device

110.” *Id.*, 7:1-3. “The social networking webpage 155 may include a link that launches media recorder software 137 stored on the server system 130.” *Id.*, 7:7-9. The ’997 Patent explains further that “media recorder software 137 provides functionality enabling users to record a video using a video recording interface that provides recording controls such that the recorded video is stored on the server system 130.” *Id.* 7:9-12. According to the ’997 Patent, “[t]he social networking webpage 155 can be displayed on a particular user device 110 as a displayed instance 153.” Ex. 1001, 14:13-15.

43. Also, at Figure 1B below, the ’997 Patent describes the “social networking webpage displayed in the user device of FIG. 1A.” Ex. 1001, 14:9-10.



Ex. 1001, FIG. 1A (annotated).

44. According to the '997 Patent “[t]he social networking webpage 155 can be displayed on a particular user device 110 as a displayed instance 153.” Ex. 1001, 14:13-15. “[W]hen the social networking web hosting server 121 receives a request from the user device 110 to invoke media recorder software 137 within the displayed instance 153, a video management frame 159 is displayed in the displayed instance 153.” *Id.*, 14:25-53. “[A] video recorder interface is [then] instantiated within the video management frame 159,” which can be implemented “using an iFrame.” *Id.*, 14:32-34. “The video recorder interface allows a user to

record video to the server system 130 using the media recorder software 137 that
executes on the server system 130.” *Id.*, 14:42-44.

45. Representative independent claim 20 recites this well-known
implementation:

[20.0] A non-transitory computer storage medium
encoded with a computer program, the program
comprising instructions that when executed by data
processing apparatus cause the data processing apparatus
to perform operations comprising:

[20.1.1] providing a **content capture user interface**
within **displayed instances** of a **first graphical user**
interface that includes display elements [20.1.2] hosted on a
web server system [20.1.3] in response to a user selection
of a **link** included in a graphical user interface that includes
display elements hosted on the web server system,

[20.2.1] wherein the content capture user interface is
provided within a frame displayed in the first graphical user
interface [20.2.2] and the content capture user interface is
adapted to allow users to provide user submissions to a **user**
content management server system using **controls**
included within the frame that includes the content capture
user interface, [20.2.3] and the user submissions are
captured using content capture software executing on the
user content management server system [20.2.4] through a

communication interface between the web server system and
the user content management server system;

[20.3] receiving a plurality of user submissions,

[20.4.1] wherein each user submission defines content
captured through the content capture user interface on a
respective displayed instance of the first graphical user
interface [20.4.2] and each user submission is captured using
the content capture software executing on the user content
management server system;

[20.5] generating a plurality of user submission
content files based on the received user submissions; and

[20.6] **storing** the user submission content files on the
user content management server system.

46. As I discuss below in more detail, the computer readable medium and
system presented in the '997 Patent—allowing recording and storing of videos at a
server—were well known to persons of ordinary skill in the art before the earliest
priority date of the '997 Patent.

V. LEVEL OF ORDINARY SKILL IN THE PERTINENT ART

47. I understand that the level of ordinary skill may be reflected by the
prior art of record, and that a POSITA to which the claimed subject matter pertains
would have the capability of understanding the scientific and engineering
principles applicable to the pertinent art. I understand that one of ordinary skill in
the art has ordinary creativity, and is not a robot.

48. I understand there are multiple factors relevant to determining the level of ordinary skill in the pertinent art, including (1) the levels of education and experience of persons working in the field at the time of the invention; (2) the sophistication of the technology; (3) the types of problems encountered in the field; and (4) the prior art solutions to those problems. There are likely a wide range of educational backgrounds in the technology fields pertinent to the '997 Patent. The concepts disclosed in the '997 Patent are relatively simple and would have been covered by an undergraduate-level course on network architecture, website design, and/or Internet application design.

49. I am very familiar with the knowledge and capabilities that a person of ordinary skill in the art of network architecture and website design would have possessed in May 2012, especially as to design of Internet applications (which is closely related to both network architecture design and also website design). Specifically, my experience in the industry, with colleagues from academia, with graduate students whose work I supervised, and with engineers practicing in the industry during the relevant timeframe allowed me to become personally familiar with the knowledge and capabilities of a person of ordinary skill in the area of Internet applications. Unless otherwise stated, my testimony below refers to the knowledge of one of ordinary skill in the art in the field of network architecture and Internet applications at the time of the priority date of the '997 Patent.

50. In my opinion, the level of a person of ordinary skill in the art needed to have the capability of understanding of network architecture, website design, and Internet application design applicable to the '997 Patent is (i) a Bachelor's degree in Computer Science, Electrical and/or Computer Engineering, or equivalent training, and (ii) approximately two years of experience in network architecture and website design including the design of Internet applications (which is closely related to both network architecture design and also website design). Lack of work experience can be remedied by additional education, and vice versa. Such academic and industry experience would be necessary to appreciate what was obvious and/or anticipated in the industry and what a person of ordinary skill in the art would have thought and understood at the time. I believe I possess such experience and knowledge, and am qualified to opine on the '997 Patent.

51. For purposes of this Declaration, in general, and unless otherwise noted, my testimony below refers to the knowledge of one of ordinary skill in the art during the time period around the earliest claimed priority date of the '997 Patent. I would have been a person with at least ordinary skill in the art at that time

VI. BROADEST REASONABLE INTERPRETATION

52. It is my understanding that in order to properly evaluate the '997 Patent, the terms of the claims must first be interpreted. It is my understanding that

the claims are to be given their broadest reasonable interpretation in light of the specification.

53. In order to construe the claims, I have reviewed the entirety of the '997 Patent along with portions of the prosecution history of the '997 Patent (Ex. 1002) and the prosecution history of the '382 Patent (Ex. 1004). Consistent with the '997 Patent disclosure, I have given the terms in the Challenged Claims the broadest reasonable interpretation, as understood by one of ordinary skill in the art.

A. “linear television program”

54. This term appears in claims 28, 30, and 33.

55. It is my opinion that a POSITA would understand the broadest reasonable interpretation of “linear television program” to be “traditional television programming.”

56. The phrase “linear television program” appears in the '997 Patent specification, but the '997 Patent does not provide a definition for this claim term. However, the '997 Patent incorporates by reference the application which became the '304 Patent, U.S. Appl. No. 13/185,471. The '304 Patent describes that “*traditional television programming* for a television network is *linear*” and the '304 Patent describes the use of “a set top box or some other gateway or device that receives and decodes the signal so that it can be played on a television or

monitor.” Ex.1005, 2:12-21, 17:23-25. Thus, a POSITA would have understood a
“linear television program” to be “traditional television programming.”

B. “user submission[s]”

57. This term appears in claims 20-22 and 30-34.

58. It is my opinion that a POSITA would understand the broadest
reasonable interpretation of “user submission[s]” to include video content.

59. The ’997 Patent does not provide a definition for this claim term.
The ’997 Patent does disclose that as “video data is generated [by the user], the
video data is cached and a predetermined amount of video data is intermittently
transmitted from the client computing device to the one or more back-end servers.”
Id., 10:16-19. Further, the ’997 Patent describes “uploading of crowd-sourced
video...or other user-generated content.” *Id.*, 10:58-63. Thus, based on these
disclosures, a POSITA would have understood that user-generated content is
submitted as a “user submission” or “user submissions,” and includes video
content.

60. This interpretation is consistent with the claims’ usage of these terms.
For example, claim 19 (not challenged here) recites that “*user-generated content*”
is provided “*for display*.” Claim 22 states that “*user submissions comprise video*.”
Likewise, claim 32 states that “*user submissions comprise user-generated video*.”

Thus, a POSITA would have understood “user submission[s]” to include at least user-generated video.

C. “display elements”

61. This term appears in claims 20, 25, and 31.

62. It is my opinion that a POSITA would understand the broadest reasonable interpretation of “display elements” to at least include webpage components that are displayed.

63. The ’997 specification does not use this term. The ’997 Patent does, however, describe that a “GUI . . . may provide interactive elements that allow a user to interact with a particular component within and/or external to the social networking webpage.” Ex. 1001, 15:37-48. Claim 23, which depends from claim 20, also recites that a “*graphical user interface [that includes display elements] comprises a first webpage.*” *Id.*, claim 23. A POSITA would have understood, based on these disclosures, that the term “display elements” includes webpage components that are displayed.

64. A computer dictionary near the time of the ’997 Patent confirms this interpretation. The dictionary defines the term “element” as “[i]n HTML, a distinctive component of a document’s structure, such as a title, heading, or list. HTML divides elements into two categories: head elements (such as the document’s title) and body elements (headings, paragraphs, links, and text).” Ex.

1012, p. 126. A POSITA would have understood that, in HTML, not all components of a document's structure are displayed when a web page is rendered for display; for example, some content within head elements, like a meta tag, is not displayed when a web page is rendered. Thus, a POSITA would have understood that the broadest reasonable interpretation of the term "display elements" includes webpage components that are displayed.

65. Claim terms not discussed above are given their broadest reasonable interpretation, as understood by one of ordinary skill in the art, consistent with the '997 Patent disclosure.

66. I apply these constructions as the broadest reasonable constructions in view of the specification for purposes of my analysis below.

VII. DETAILED INVALIDITY ANALYSIS

67. I have been asked to provide my opinion as to whether the Challenged Claims of the '997 Patent would have been obvious in view of the prior art. The discussion below provides a detailed analysis of how the prior art references I reviewed teach the limitations of the Challenged Claims of the '997 Patent.

68. As part of my analysis, I have considered the scope and content of the prior art and any potential differences between the claimed subject matter and the prior art. I conducted my analysis as of the claimed priority date of the '997 Patent:

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

May 9, 2012. I have also considered the level of ordinary skill in the pertinent art as of that date.

69. I describe in detail below the scope and content of the prior art, as well as any differences between the claimed subject matter and the prior art, on an element-by-element basis for each Challenged Claim of the '997 Patent. This analysis supports my finding that the differences between the claims of the '997 Patent and the prior art discussed herein are such that the subject matter as a whole would have been obvious at the time of the filing of the '997 Patent to a person having ordinary skill in the art to which the subject matter pertains.

70. As described in detail below, the claimed subject matter of the Challenged Claims would have been obvious in view of the teachings of the identified prior art references as well as the knowledge of a POSITA.

71. I will now describe, in the grounds below, on an element-by-element basis how the prior art teaches all elements of claims 20-35. Unless otherwise noted, all ***bold italics*** and ***bold italics underline*** emphasis in any quoted material has been added.

**A. Ground 1: Claims 20-27, 29, 31-32, and 34-35 are Obvious Over
the Combination of Nassiri, Bradford, and Zhu**

72. It is my opinion that the combined teachings of the Nassiri, Bradford,
and Zhu references teach, to a POSITA the subject matter of each and every
limitation of claims 20-27, 29, 31-32, and 34-35 of the '997 Patent.

1. The Prior Art References and Motivation to Combine

a) Background on Nassiri

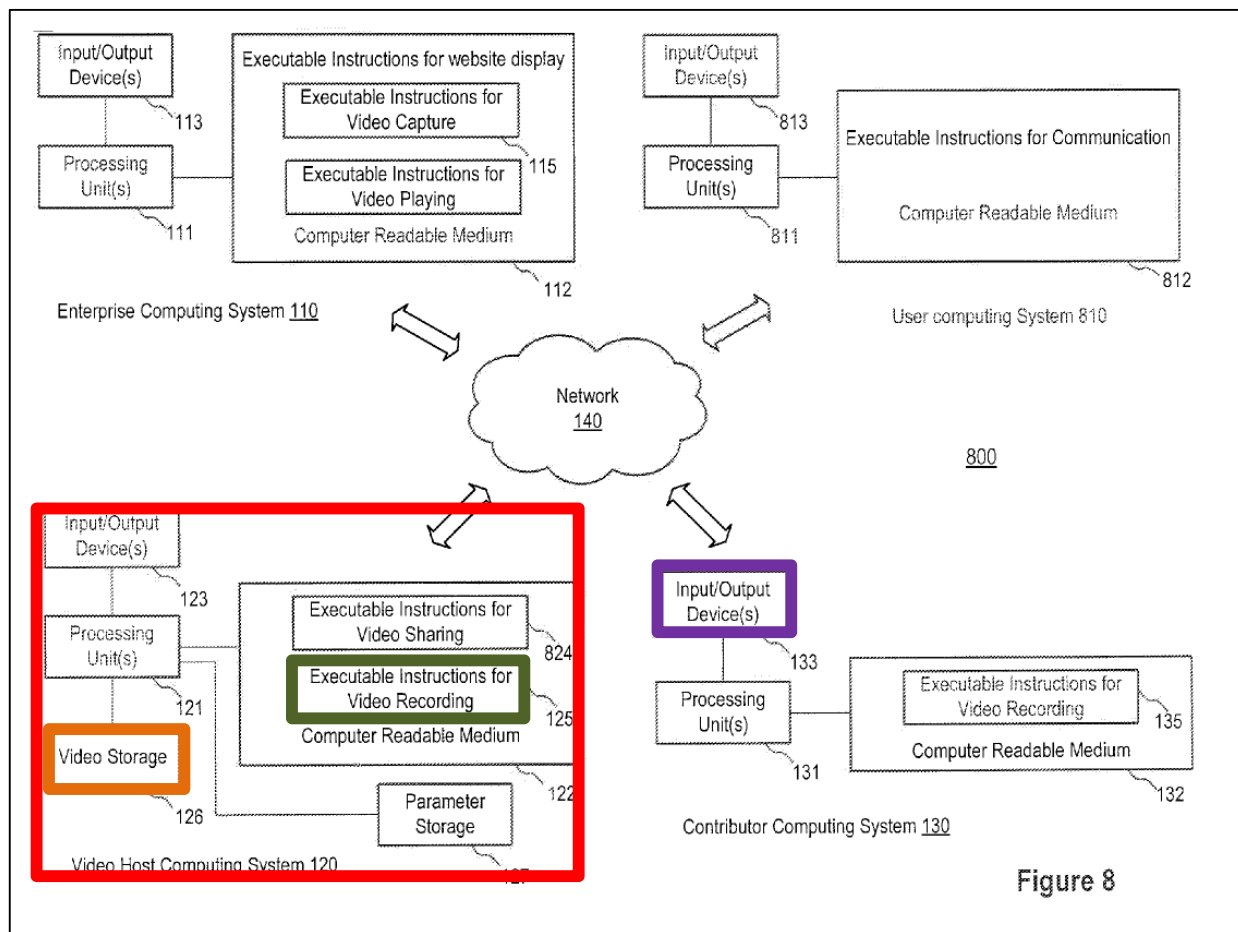
73. U.S. Patent Publication No. 2012/0254925 (“Nassiri”) (Ex. 1009) was
filed on April 1, 2011, and published on October 4, 2012.

74. Nassiri, like the '997 Patent, generally discloses “Computer Systems
and Methods for Video Capturing, Managing, and/or Sharing” over the Internet.
Ex. 1009, Title.

75. Nassiri’s system enables “enterprises, in a scalable manner, to obtain
authentic marketing materials from customers or other individuals”—in particular,
“promotional videos may be received directly from customers or other
individuals.” Ex. 1009, ¶ 15. An enterprise may “then share the videos with others”
at a website. Ex. 1009, ¶ 15. The system of Nassiri comprises an “enterprise
computing system 110” which hosts webpages, “a video host computing system
120” which receives and stores videos, and “a contributor computing system 130”
at which video content is generated by a user. Ex. 1009, ¶ 16.

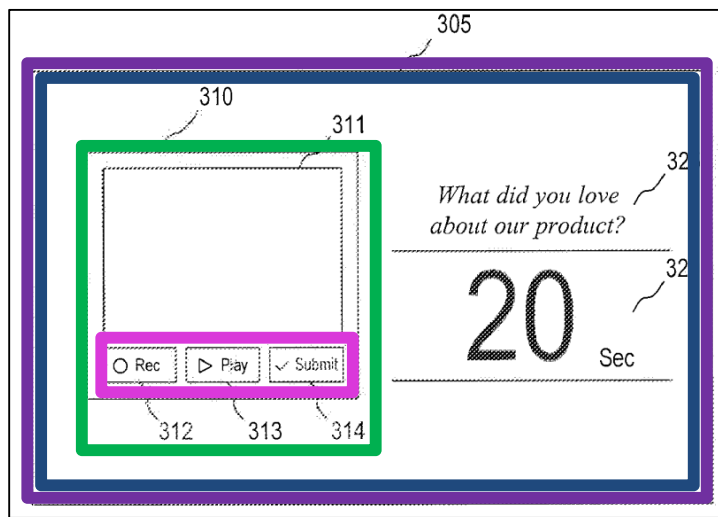
76. To facilitate capturing and sharing videos, Nassiri describes that an “enterprise computing system ... implemented as ... a web server” “may display any **website** associated with the enterprise.” According to Nassiri, a separate “**video host computing system**” includes “**executable instructions for video recording**” which instantiate a **video recorder interface**. *Id.*, ¶¶ 20-21, FIG. 3.

77. Also like the '997 Patent, Nassiri teaches that a “user may follow the **embedded ... link** and utilize the **video recorder** functionality provided by the executable instructions for video recording” within **a displayed instance** of the webpage. *Id.*, ¶ 26. Nassiri further teaches that “an HTML iframe may be used to embed a video recorder in a webpage provided by the enterprise computing system.” *Id.*, ¶ 19. Video recorder interface **controls** (e.g., start/record and stop buttons), allow a user to “capture video and submit the video to the video host computing system.” *Id.*, ¶¶ 32-33, 38. Nassiri also states that “the video may be transmitted to the video host computing system 120...in part as it is being recorded.” Ex. 1009, ¶ 35. Thus, the “video host computing system 120 may receive and **store** [the captured] videos.” *Id.*, ¶ 20. Figure 8 of Nassiri, annotated below, shows the various components of Nassiri’s system:



Ex. 1009, FIG. 8 (annotated)

78. Nassiri at Figure 3, reproduced below and annotated, illustrates its video recorder 310, including interface controls, which may be embedded within a displayed instance of a webpage using an HTML (Hypertext Markup Language) iframe. Ex. 1009, ¶ 19.



Ex. 1009, FIG. 3 (annotated)

79. In more detail, Nassiri discloses recording and distributing user-generated video using an “enterprise computing system 110, a video host computing system 120, and a contributor computing system 130.” Ex. 1009, ¶ 16. These components are illustrated in both Fig. 1 and Fig. 8 of Nassiri. Each of these components has “[s]ubstantially any form factor” and may be implemented as “any variety of devices including, but not limited to, server systems, desktops, laptops, kiosks, mobile phones, personal digital assistants, set top boxes, appliances, or combinations thereof.” Ex. 1009, ¶ 16.

80. The *enterprise computing system* is a system “operated by an enterprise that may want to capture, manage, and/or share videos.” Ex. 1009, ¶ 17. As contemplated by Nassiri, the “enterprise” includes “businesses (having traditional storefronts and/or web presences, government agencies, or any other

entity.” Ex. 1009, ¶ 17. The enterprise computing system can be implemented as a web server to host “any webpage associated with the enterprise.” Ex. 1009, ¶ 17. The enterprise computing system also “transmit[s] content over the network 140 for display in substantially any application” and not merely in a web browser. Ex. 1009, ¶ 17.

81. The ***video host computing system*** is a system that stores web applications for video recording and sharing. The “***executable instructions for video recording***” are called by webpages hosted on the enterprise computing system. Ex. 1009, ¶ 20. The video host computing system also “receive[s] and store[s] videos from any number of contributor computing systems.” Ex. 1009, ¶ 20. The video host computing system also stores “executable instructions for video sharing” which, among other things, provide an interface for a “video player” to a user device (Ex. 1009, ¶ 57), and also determine “[t]he particular video played, and/or an order in which videos are played or an order in which videos are displayed for playback by a user” (Ex. 1009, ¶ 59).

82. The ***contributor computing system***, like the other components of Nassiri, has “substantially any form factor” and can be implemented as a “variety of devices including, but not limited to, server systems, desktops, laptops, kiosks, mobile phones, personal digital assistants, set top boxes, appliances, or combinations thereof.” Ex. 1009, ¶ 16.

83. To capture video in Nassiri, a user at the contributor computing system accesses a website containing an “embedded” link to “executable instructions for video capture” stored on an enterprise computing system. Ex. 1009, ¶ 18. Video capture functionality is provided through those instructions, which include “executable instructions for an embedded video recorder.” Ex. 1009, ¶ 19. For example, “an HTML iframe may be used to embed a **video recorder** in a web page provide by the enterprise computing system.” Ex. 1009, ¶ 19. That iframe “may point users to the video host computing system” (Ex. 1009, ¶ 19) and, specifically, to the video host computing system’s “executable instructions for video recording.” As an example, Nassiri provides this sample code:

```
<iframe style="height:460px; width:820px; border:0px" border=0  
frameborder=0 width="820" height="460"  
src=http://record.videogenie.com/media/?uid=123A45B6789C00D12  
E></iframe>.
```

Ex. 1009, ¶ 19.

84. When the contributor computing system accesses the enterprise computing system’s webpage with that inline frame code, the “src” tag and its corresponding URL value calls the executable instructions for video recording hosted on the video host computing system, which causes a video recorder interface to be displayed at the contributor computing system.

85. The **video recorder** interface is illustrated in Figures 3 and 4 of Nassiri.

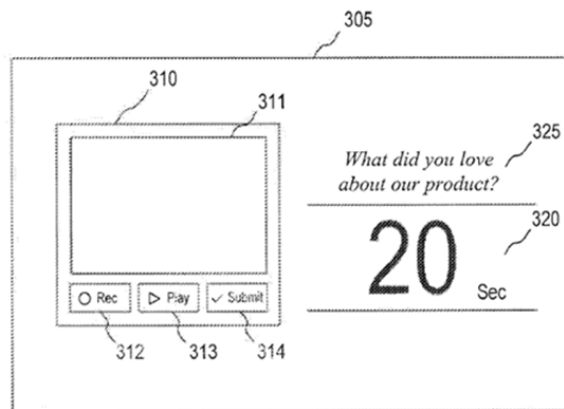


Figure 3

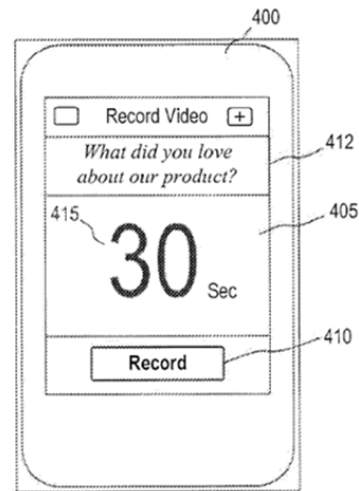


Figure 4

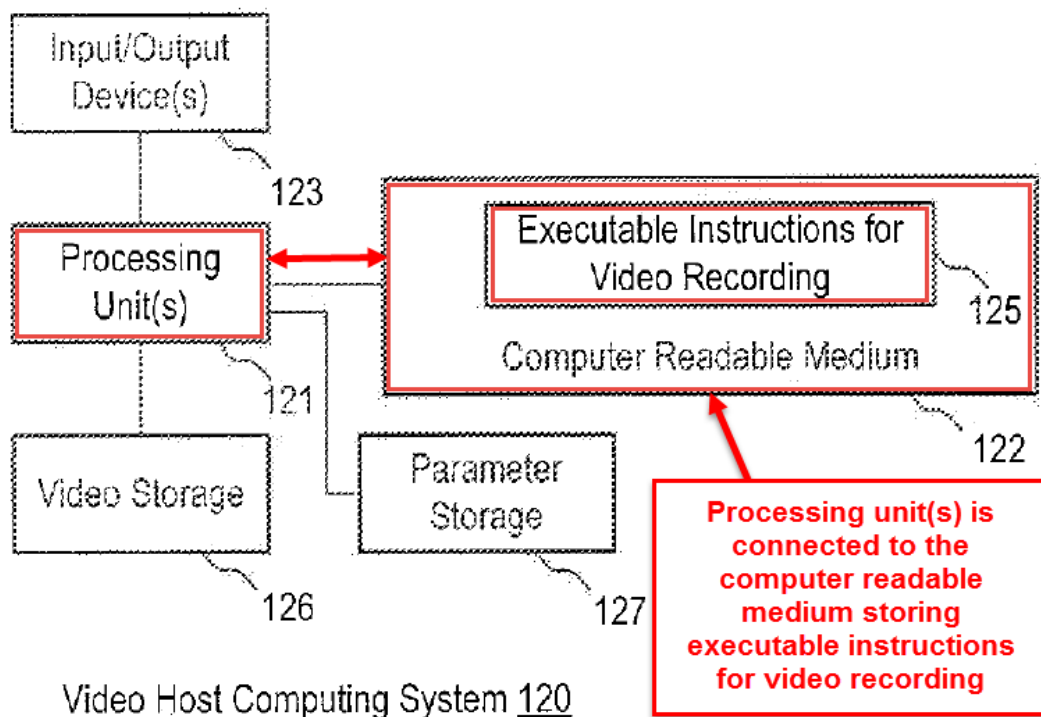
Ex. 1009, FIG. 3 and FIG. 4

As shown in Figure 3, the video recorder interface includes a “record button 312, a play button 313, and a submit button 314” which “may be used to capture video and submit the video to the video host computing system.” Ex. 1009, ¶ 38.

86. The “iframe generated on the website points the user to another site.” Ex. 1009, ¶ 19. In this way, “a site hosted by the video host computing system 120 . . . may appear within the context of a web page or other content hosted by the enterprise computing system 110 using the iframe.” Ex. 1009, ¶ 19.

87. The executable instructions for video recording are stored on the video host computing system (object 120). Those instructions are executed by the

video host computing system's processor to provide the relevant video recorder functionality to a remote system. *See* Ex. 1009, ¶ 21 (“[T]he executable instructions for video recording 125 may allow the video host computing system 120 to provide video recorder functionality that may be accessed by one or more users, such as the contributor computing system 130.”). As reflected in the below annotated excerpt from Figure 1, processing unit 121 is connected to executable instructions for video recording in the video host computing system 120.



Ex. 1009, FIG. 1 (excerpt, annotated)

88. Using the video recorder interface in Nassiri, a user records videos at the contributor computing system by interacting with the “record” or “start button” and “stop” elements of the interface. *See* Ex. 1009, ¶ 33 (“[A] request may be

received to begin recording video. This may occur, for example, if a contributor presses the start button associated with the displayed video recording.”).

89. The “video generated using the video recorder may be transmitted to the *video host computing system* 120 for storage in video storage 126.” Ex. 1009, ¶ 28. The transmission of video data occurs either after the video recording has been completed or while the video is being recorded—that is, video may be “streamed” from the contributor computing system to the video host system. *See* Ex. 1009, ¶ 28 (“In some examples, the video may be transmitted to the video host computing system while it is being recorded in accordance with the executable instructions for video recording 125.”).

90. A workflow for Nassiri’s video capture, transmission, and storage is illustrated in Fig. 2.

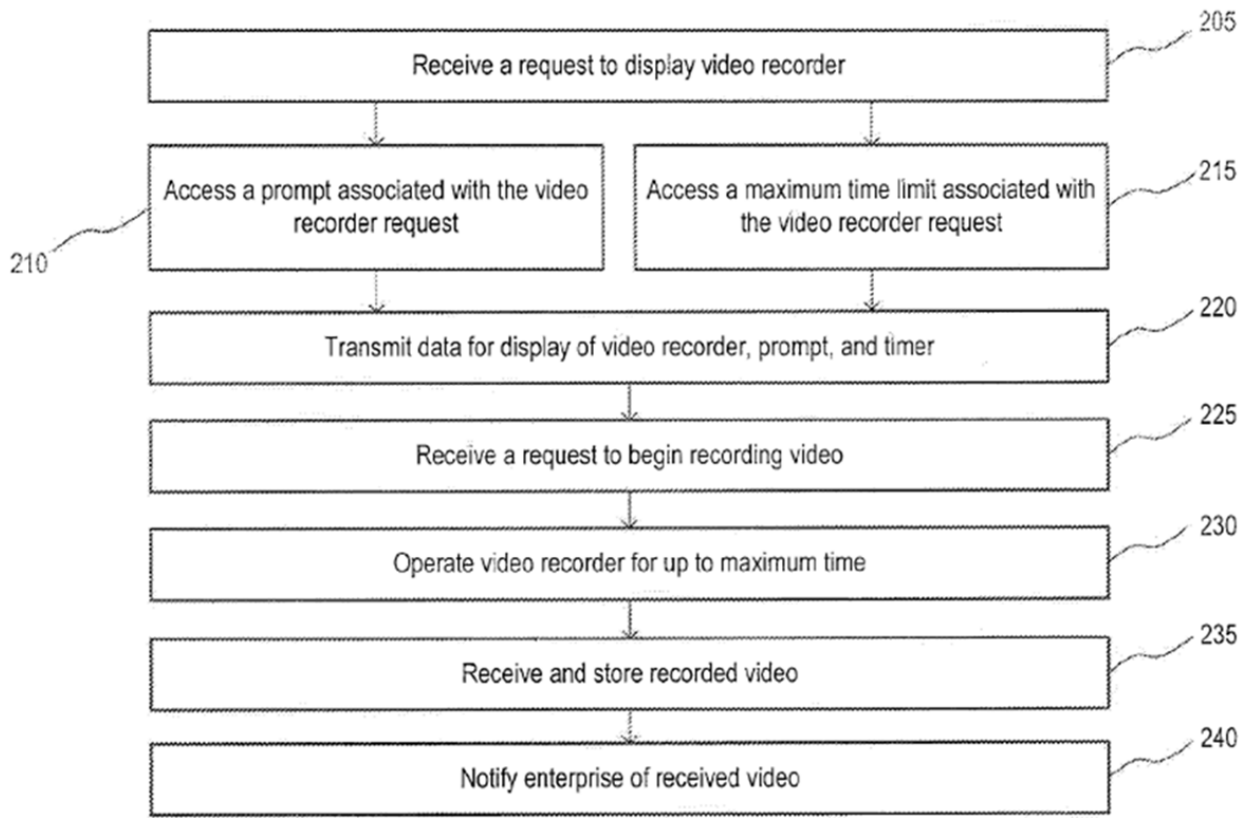


Figure 2

Ex. 1009, FIG. 2.

91. Videos which are submitted to Nassiri's video host computing system may be reviewed and then rejected or approved for further distribution. *See* Ex. 1009, ¶ 51. The user at the enterprise computing system is presented with a graphical user interface as illustrated at Fig. 7.

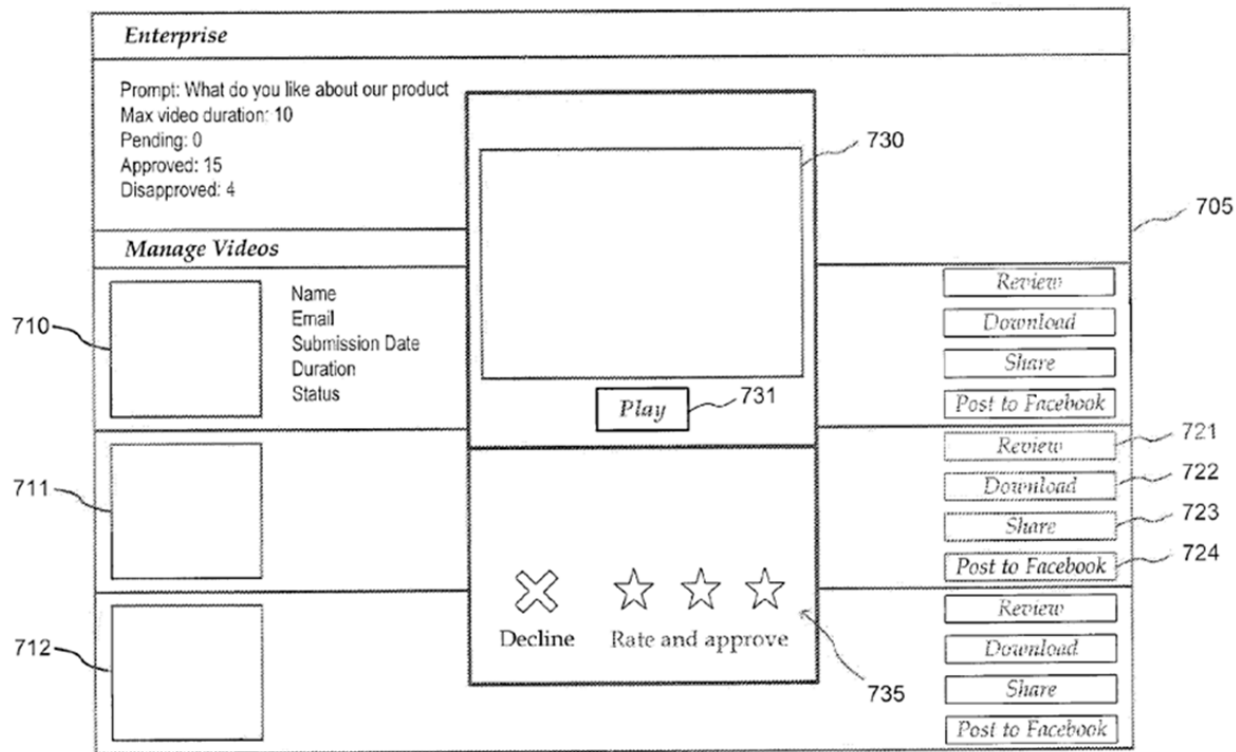


Figure 7

Ex. 1009, FIG. 7

92. Nassiri explains that “a user of the enterprise computing system 110 or other representative of an enterprise may log in to the *video host computing system* and share captured videos on... their own enterprise website, or other content providing mechanism using a click or touch of an interface, such as that shown in FIG. 7.” Ex. 1009, ¶ 56. For instance, the “share” function allows “for sharing the video to another webpage or account...” —“button 724 may be provided to directly share the video In this manner, a single click (or touch in some examples) may be used to add a particular video” Ex. 1009, ¶ 51. The executable instructions for video sharing of Nassiri’s video host computing system

also include instructions for “embedding a link to the selected video in any of the locations described above.” Ex. 1009, ¶ 56. In this way, enterprises may publish videos to the Internet, on their own websites, for viewing by the public.

93. Just as in the '997 Patent, Nassiri's *video host computing system* tracks user responses to videos it has approved for distribution. This includes tracking the “number of views each video has received”, “location or demographic information about the viewer”, and the “number of likes or other hits the video has received, the length of time a user remains on a site following the video, a number of conversion events occurring after the video is viewed, or combinations thereof.” Ex. 1009, ¶ 61. That tracked information may be graphically displayed, such as in an interface illustrated in Fig. 10 of Nassiri, which I have annotated.

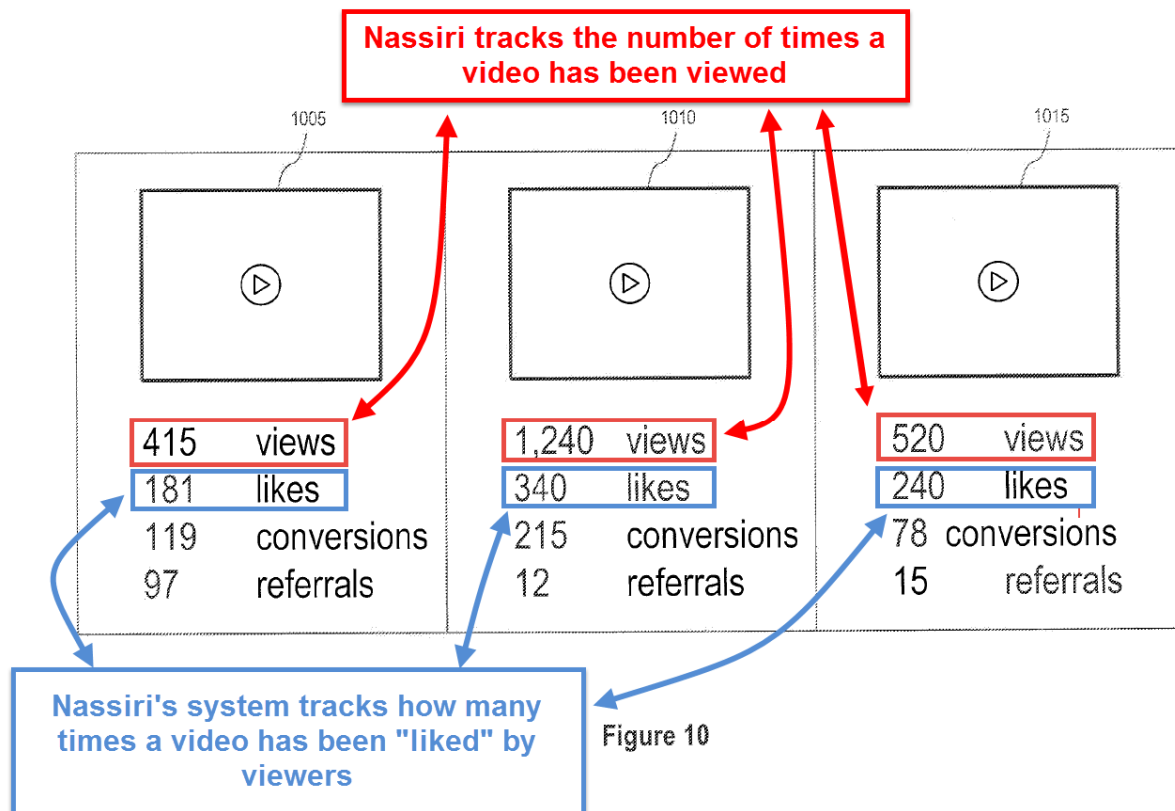


Figure 10

Ex. 1009, FIG. 10 (annotated).

94. Further, as in the '997 Patent, Nassiri discloses the use of user or viewer feedback to determine what videos to promote, what videos to play, and what order in which videos are arranged and displayed. “[T]he information shown in FIG. 10 may result in the video host computing system being more likely to display the particular video for playback.” Ex. 1009, ¶ 72. For example, “the video host computing system may be more likely to display the video 1010, or to display the video 1010 more prominently, because it has generated a greater number of views, likes, and conversions.” Ex. 1009, ¶ 72; *see also* ¶ 61 (“[V]ideos which

were viewed more frequently may be more likely to be selected for playback or may be displayed higher on a list of displayed videos for selection by a user.”).

b) Background on Bradford

95. “HTML5 Mastery Semantics, Standards, and Stylings”, authored by Anselm Bradford and Paul Haine (“Bradford”) (Ex. 1010), was published in 2011.

96. Bradford is a textbook on Hypertext Markup Language (HTML), and specifically, discusses HTML5, an update to the specification of the HTML language. HTML5 introduced, among other things, new features such as multimedia support to the HTML language. Ex. 1010, p. 1. As one example, Bradford discusses new elements introduced with HTML5, such as a “video” element for “embedded and interactive content,” and also discusses changes to the HTML language made in HTML5. Ex. 1010, pp. 12, 1.

97. In the chapter titled “Multimedia: Video, Audio, and Embedded Media,” Bradford discusses the “media elements in HTML,” and discusses one technique for embedding HTML, namely, iframes. Ex. 1010, pp. 149, 157. Bradford explains that in “HTML5 the iframe element, [is] known as an inline frame.” Ex. 1010, pp. 157-158. According to Bradford, Netscape Navigator 2.0 (released in 1995) introduced the ability to create frames, and since then, advances in the HTML language have introduced iframes, which “allow[] an entire HTML page...to be embedded in another page.” Ex. 1010, p. 157. Bradford further states

that “[t]he ability to embed one page in another is useful for incorporating third-party HTML code into your own web page.” Ex. 1010, pp. 157-158. Notably, Bradford explains that this iframe functionality is beneficial for embedding “extensive third-party content on your site...” Ex. 1010, pp. 157-158 and 161.

98. Bradford first provides an overview of iframe elements. The iframe element “creates a box with a set width and height into which [an] external document is loaded,” and Bradford provides sample HTML code to create an iframe. Ex. 1010, p. 158. Additionally, Bradford describes new attributes for the iframe element, such as the “sandbox” element, which is a “way to secure pieces of code dynamically to a web page from a third-party source” to prevent code loaded in an iframe from “performing certain operations that could be used for nefarious purposes.” Ex. 1010, p. 159.

99. In discussing iframes, Bradford also describes the use of the “name” attribute” for targeting inline frames, such that content from a particular link on a webpage can be loaded into a specific iframe. In particular, Bradford states:

The iframe has one last attribute—which isn’t new—the **name attribute**, which can be used to identify a particular inline frame among other inline frames used on a page. Doing so means **a particular inline frame can be used as a target for links when the target attribute is set to a particular inline frame’s name.**

Ex. 1010, p. 161.

Bradford provides example code to accomplish the targeting of an iframe using the “name” attribute:

```
<iframe name="terms" src="tnc.html">  
    <a href="tnc.html" target="_blank">View Terms and Conditions</a>  
</iframe>  
<a href="page2.html" target="terms">Next page</a>
```

In this case, when the “Next page” hyperlink text is clicked, the page2.html page is loaded into the “terms” inline frame.

Ex. 1010, p. 161. Bradford also describes new attributes for the iframe tag which prevent iframe content from performing operation that can be used for nefarious purposes. Ex. 1010, pp. 159-162.

c) Background on Zhu

100. U.S. Patent Publication No. 2010/0180330 (“Zhu”) (Ex. 1013) was filed on January 9, 2009, and published on July 15, 2010.

101. Zhu describes systems and methods for providing web applications, and in particular, techniques for integrating content from different sources on the Web to create new experiences at a single webpage. Ex. 1013, ¶ 24. Like Nassiri, Zhu describes a networked server system for providing content. Ex. 1009, ¶ 16; Ex. 1013, ¶ 24. Zhu describes that, in its networked system, each ““*server [] includes . . . an interface 216 for enabling communication over network 180.*” Ex. 1013, ¶25, FIG. 2A. To integrate content from multiple sources, Zhu also discloses the use of “*APIs (Application Program Interfaces)* to create web

mashups [which] overlays [] information provided by a first website [within a webpage] provided by a second website.” Ex. 1013, ¶1.

d) Reasons to Combine Nassiri and Bradford

102. It is my opinion that a POSITA would have had looked to and combined the teachings of Nassiri and Bradford.

103. Nassiri and Bradford are in the same field of endeavor. Nassiri describes capturing and sharing videos over the Internet, using webpages written in HTML. Ex. 1009, ¶ 19. Bradford is a reference book on the HTML language that would have been informative and useful to anyone developing webpages. Further, both references address the need of using iframes to provide content from another source. Ex. 1009, ¶ 19; Ex. 1010, p. 157. Accordingly, a POSITA would have looked to and consulted an HTML reference book, such as Bradford, for further explanation and details about implementing HTML webpages that Nassiri describes. As a reference guide, Bradford demonstrates what HTML coding techniques would have been known to a POSITA. Incorporating them into Nassiri would have required only the programming skills typical of a POSITA, no more than what would have been required of a POSITA to implement Nassiri alone.

104. Nassiri and Bradford also teach complementary approaches to linking iframes in a webpage. In particular, Nassiri teaches that its webpage includes a link to a recorder and that a video recorder can be provided in an HTML iframe by a

third-party system. Ex. 1009, ¶¶18, 19. Nassiri further notes that “the iframe...may appear within the context of a web page . . . hosted by the enterprise computing system.” *Id.* Bradford supplements Nassiri and gives an example of how to use the name attribute of an iframe—which is available for the iframe of Nassiri—such that “a particular inline frame can be used as a target for links” in the currently displayed webpage. Ex. 1010, pp. 157-158, 161-162. Bradford explains that “when the [] hyperlink text is clicked, [a new HTML] page is loaded into the [] inline frame” of the currently displayed webpage. *Id.*, p. 161. Bradford’s teaching of using a link, that when clicked, loads content in an iframe of the currently displayed webpage was sensible and applicable to Nassiri for numerous reasons.

105. A POSITA would have recognized that by combining Bradford’s teachings of using a link to target an iframe in the currently displayed webpage and Nassiri’s video recorder within an iframe in the displayed webpage, only users who expressed an intention to record a video—by clicking the link within the webpage—would cause the video recording software to execute and present a video recorder interface in the iframe in the currently displayed webpage, thereby sparing valuable resources on the video host computing system. Thus, a POSITA would have used Bradford’s link teachings in Nassiri because it would allow for targeting a specific iframe with a link to load a video recorder in the currently

displayed webpage only when the user intended, thereby sparing valuable
resources on the video host.

106. Also, a POSITA would have been further motivated to use Bradford's teachings with Nassiri's system because doing so would allow Nassiri's video recorder interface to be presented to the user within the context of the currently displayed webpage, and without causing the web browser to load an entirely new webpage. Loading an entirely new webpage is slower and requires more resources (e.g., bandwidth and CPU utilization) than loading a portion of a webpage, e.g., loading only the iframe portion. Accordingly, it would have been obvious to a POSITA that more efficient resource usage and faster webpage loading times could be achieved by using a link within the webpage that, when selected, loads the video recorder interface within an iframe of the currently displayed webpage. Thus, a POSITA would have used the name attribute for the iframe of Nassiri, as Bradford's teaches, because it would load a video recorder (from another server) within the iframe when the user clicks a link embedded in the webpage, while maintaining the rest of the content of the webpage in order to more efficiently use resources and minimize webpage loading times.

e) Reasons to Combine Nassiri and Zhu

107. A POSITA would have had several reasons to look to and combine the teachings of Nassiri and Zhu.

108. A POSITA would have looked to and considered the teachings of Nassiri and Zhu together because both are in the same field of invention, pertaining to networked server systems for providing content. Ex. 1009, ¶ 24; Ex. 1013, ¶ 24.

109. The teachings of Zhu complement the teachings of Nassiri, and a POSITA would have combined the teachings to obtain various benefits. For example, Nassiri discloses that the video host computing system and the enterprise computing system communicate with each other through “network 140” to provide content to a user. Ex. 1009, ¶¶ 16, 32, FIG. 8. Zhu complements Nassiri’s video host computing system and explains that “*as known in the art*” each “*server [] includes . . . an interface 216 for enabling communication over network.*” Ex. 1013, ¶ 25. A POSITA would have understood and recognized that Zhu’s well known interface for enabling communication over a network would have been an efficient way to allow communication through a network using standard protocols (e.g., Ethernet for wired and Wi-Fi for wireless) at the link layer. Therefore, a POSITA would have found it obvious to utilize a network interface, as Zhu teaches, with the servers of Nassiri (which connect to “wired or wireless” networks) for the purpose of “enabling communication over the network” in an efficient way at the link layer. Ex. 1009, ¶ 16; Ex. 1013, ¶¶ 24-25.

110. At a different communication layer, Zhu also discloses using “*APIs (Application Program Interfaces)* to create web mashups [which] overlays []

information provided by a first website [within a webpage] provided by a second website.” Ex. 1013, ¶ 1. A POSITA would have understood that APIs are a set of standardized subroutines, typically defined in a library. Ex. 1014, ¶ 3. Further, it was well-known that APIs can be easily used by developers of web-based systems to interface with other systems and provide content. *See e.g.*, Ex. 1014, ¶ 3 (“An API allows an application programmer to efficiently develop an application program capable of interfacing with the computing platform because the interface work is already done by the API.”) A POSITA would have understood that APIs were a commonly-used way of incorporating content from a web-based system to another web-based system.

111. Nassiri describes such an arrangement in which information provided by a first website is overlaid with information provided by a second website. In that context, Nassiri’s system includes a video host computing system 120 and an enterprise computing system 110 which may be two “distinct computing systems 110, 120 [as] shown in FIG. 1.” Ex. 1009, ¶ 17. Nassiri describes that the information from the video host computing system 120 may be included within the information provided by the enterprise computing system 110. Ex. 1009, ¶ 18. Because Nassiri’s computing systems may be distinct, the software developers of these distinct systems would need a standardized software solution for interfacing with each other at the application level. APIs provide this functionality. To provide

for interfacing amongst distinct computing systems, “[t]he programmer simply incorporates the needed API functions from the API library into the application program.” Ex. 1014, ¶ 3. Therefore, a POSITA would have used APIs, as Zhu teaches, in the system of Nassiri, to provide an efficient and standardized interface at the application level for communicating amongst the distinct computing systems, and to incorporate Nassiri’s video recorder functionality into the website provided by the enterprise computing system. Ex. 1009, ¶ 32; Ex. 1013, ¶ 3.

112. Accordingly, combining Zhu’s teachings with Nassiri’s server system teachings would be merely the use of a known technique (e.g., using well-known network interfaces and APIs as Zhu teaches) to improve similar devices (Nassiri’s similar server systems) in the same way, for example, to (1) provide a network interface to enable communication over the network in an efficient way at the link layer and to (2) provide an efficient and standardized interface at the application layer for communication between distinct computing systems.

2. Unpatentability Analysis of Claims 20-27, 29, 31-32, and 34-35

a) Claim 20

[20.0] A non-transitory computer storage medium encoded with a computer program, the program comprising instructions that when executed by data

processing apparatus cause the data processing apparatus to perform operations comprising:

113. Nassiri teaches the preamble of claim 20.

114. First, Nassiri discloses a “**non-transitory computer readable medium encoded with executable instructions**,” and in particular, that “the computing systems generally may also include one or more **computer readable medium . . . that encodes executable instructions**. Substantially any type of computer readable medium may be used including, but not limited to, RAM, **ROM, hard disk storage**...” Ex. 1009, ¶16, claim 8. Accordingly, Nassiri teaches a “*non-transitory computer storage medium encoded with a computer program*.”

115. Second, Nassiri teaches that “[t]he **encoded executable instructions may operate in cooperation with the processing unit(s) to perform the functions described herein**” which discloses “*the program comprising instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations*” as recited. Ex. 1009, ¶16.

116. Therefore, Nassiri’s teaching of one or more computer non-transitory readable medium (e.g., ROM, disk) encoded executable instructions, operating in cooperation with processing units, teaches a “*non-transitory computer storage medium encoded with a computer program, the program comprising instructions*

*that when executed by data processing apparatus cause the data processing
apparatus to perform operations.”*

***[20.1.1] providing a content capture user interface within displayed instances of
a first graphical user interface***

117. Nassiri teaches limitation [20.1.1] of claim 20.

118. First, Nassiri teaches displayed instances of a website. For example,
Nassiri teaches that a webpage is provided for display by enterprise computing
system 110:

The enterprise computing system 110 may . . . be implemented as all
or a portion of a web server system. The executable instructions for
website display may **display any webpage associated with the
enterprise**, including but not limited to, informational pages,
purchasing pages, or combinations thereof. The executable
instructions for website display in some examples may not be limited
to the display of websites in a traditional Internet browser, but may
transmit content over the network 140 for display in substantially any
application. Ex. 1009, ¶ 17.

119. A POSITA would have understood that Nassiri’s webpage is
equivalent to “a first graphical user interface,” as the ’997 Patent, in claim 23
(which depends from claim 20) states that “the first graphical user interface
comprises a first webpage.” Ex. 1001, claim 23.

120. Nassiri further teaches that “an HTML iframe may be used to embed a video recorder in *a web page provided* by the enterprise computing system 110.”

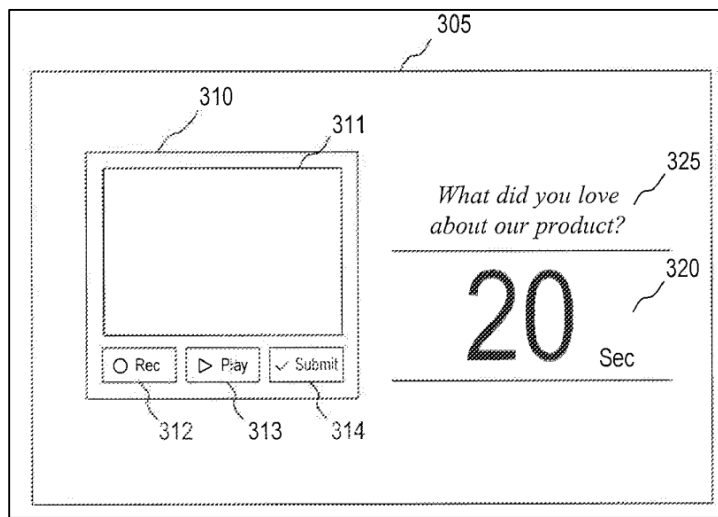
Ex. 1009, ¶ 19. Nassiri also discloses that its “video recorder functionality [] may be accessed by *one or more users*.” Ex. 1009, ¶ 21. A POSITA would have understood that each user is provided a respective displayed instance of a webpage, and that with multiple users, corresponding multiple displayed instances of the webpage would be provided.

121. Second, Nassiri teaches providing a video recording interface within the displayed instances of the webpage:

A video recorder accessible through the embedded or stand alone link may be displayed on an input/output device 133. A user may . . . utilize the video recorder functionality. Ex. 1009 ¶ 26.

[A]n HTML iframe may be used to embed a video recorder in a web page provided by the enterprise computing system 110. The iframe may point users to the video host computing system 120.” Ex. 1009, ¶ 19.

122. Nassiri illustrates its video recorder interface in Figure 3, in which a display “present[s] a contributor with a video recorder 310.” Ex. 1009 ¶ 38.



Ex. 1009, FIG. 3

123. As shown in Fig. 3, the interface of the video recorder 310 includes “record button 312, a play button 313, and a submit button 314.” Ex. 1009, ¶ 38. A POSITA would have understood Nassiri’s video recorder 310 to be “*a content capture user interface*” at least because Nassiri discloses that the video recorder “may be used to capture video.” Ex. 1009, ¶ 38. Similarly, Nassiri states that “[v]ideo, as used herein, generally refers to electronically encoded data representing a *captured video* and/or audio data.” Ex. 1009, ¶ 15.

124. Thus, Nassiri’s video recorder 310 used to capture video, which is displayed within instances of a webpage, teaches “*providing a content capture user interface within displayed instances of a first graphical user interface.*”

[20.1.2] that includes display elements hosted on a web server system

125. Nassiri teaches limitation [20.1.2] of claim 20.

126. First, Nassiri teaches that the webpage includes display elements, such as “a timer 320” and “[a] prompt 325”. Ex. 1009, ¶ 39, FIG. 3.

127. Second, Nassiri teaches that the webpage is hosted on the enterprise computing system, which may “be *implemented as all or a portion of a web server system*” to host “any webpage associated with the enterprise.” Ex. 1009, ¶ 17.

Nassiri also describes that “an HTML *iframe may be used to embed a video recorder in a web page provided by the enterprise computing system 110*.... [T]he iframe *generated on the website may appear within the context of a web page or other content hosted by the enterprise computing system 110* using the iframe.” Ex. 1009, ¶ 19. The “context of a web page” as described by Nassiri is hosted on the enterprise computing system, and would include, with reference to Fig. 3, at least the timer 320 and prompt 325.

128. Thus, Nassiri’s webpage that includes display elements such as the timer 320 and prompt 325 hosted by the enterprise computing system 110, which may be implemented as a web server system, teaches that the displayed instances of the first graphical user interface “*includes display elements hosted on a web server system.*”

[20.1.3] in response to a user selection of a link included in a graphical user interface that includes display elements hosted on the web server system

129. Nassiri in combination with the teachings of Bradford teaches
limitation [20.1.3] of claim 20.

130. First, Nassiri teaches that a link is included in the webpage hosted by
the enterprise computing system 110:

*A video recorder accessible through [a] link . . . displayed on an
input/output device 133. A user may follow the. . . link and utilize the
video recorder functionality.* Ex. 1009, ¶ 26.

*The link may, in some examples, be provided in a page of or
otherwise integrated with other information provided by the
enterprise computing system 110.* Ex. 1009, ¶ 18.

*...may appear within the context of a web page or other content
hosted by the enterprise computing system 110 using the iframe.* Ex.
1009, ¶ 19.

131. Thus, Nassiri's inclusion of a link in the webpage that includes
display elements hosted on the enterprise computing system discloses "*a link
included in a graphical user interface that includes display elements hosted on the
web server system.*"

132. Second, Nassiri teaches that its video recorder interface is provided in
response to user selection of the link:

A video recorder accessible through [a] link . . . displayed on an

input/output device 133. A user may follow the. . . link and utilize the video recorder functionality. Ex. 1009 ¶ 26.

In block 205, *a request may be received to display or otherwise access a video recorder...* The contributor *may make the request by, for example, clicking on a link displayed on another of the enterprise's sites or content providing applications....*[T]he request may accordingly be initiated by the contributor computing system.... *The request may be received by the video host computing system 120.* Ex. 1009, ¶ 30.

The executable instructions for video recording 125 may operate in cooperation with the processing unit(s) 121 to provide a video recorder functionality. That is, *the executable instructions for video recording 125 may allow the video host computing system 120 to provide video recorder functionality that may be accessed by one or more users.* Ex. 1009, ¶ 21.

[T]he contributor computing system 130 may access a website or other content provided by the enterprise computing system 110, *including the embedded or standalone link* provided by the executable instructions for video capture 115. *A video recorder accessible through the embedded or stand alone link may be displayed on an input/output device 133. A user may follow the embedded or stand alone link and utilize the video recorder functionality provided by the executable instructions for video*

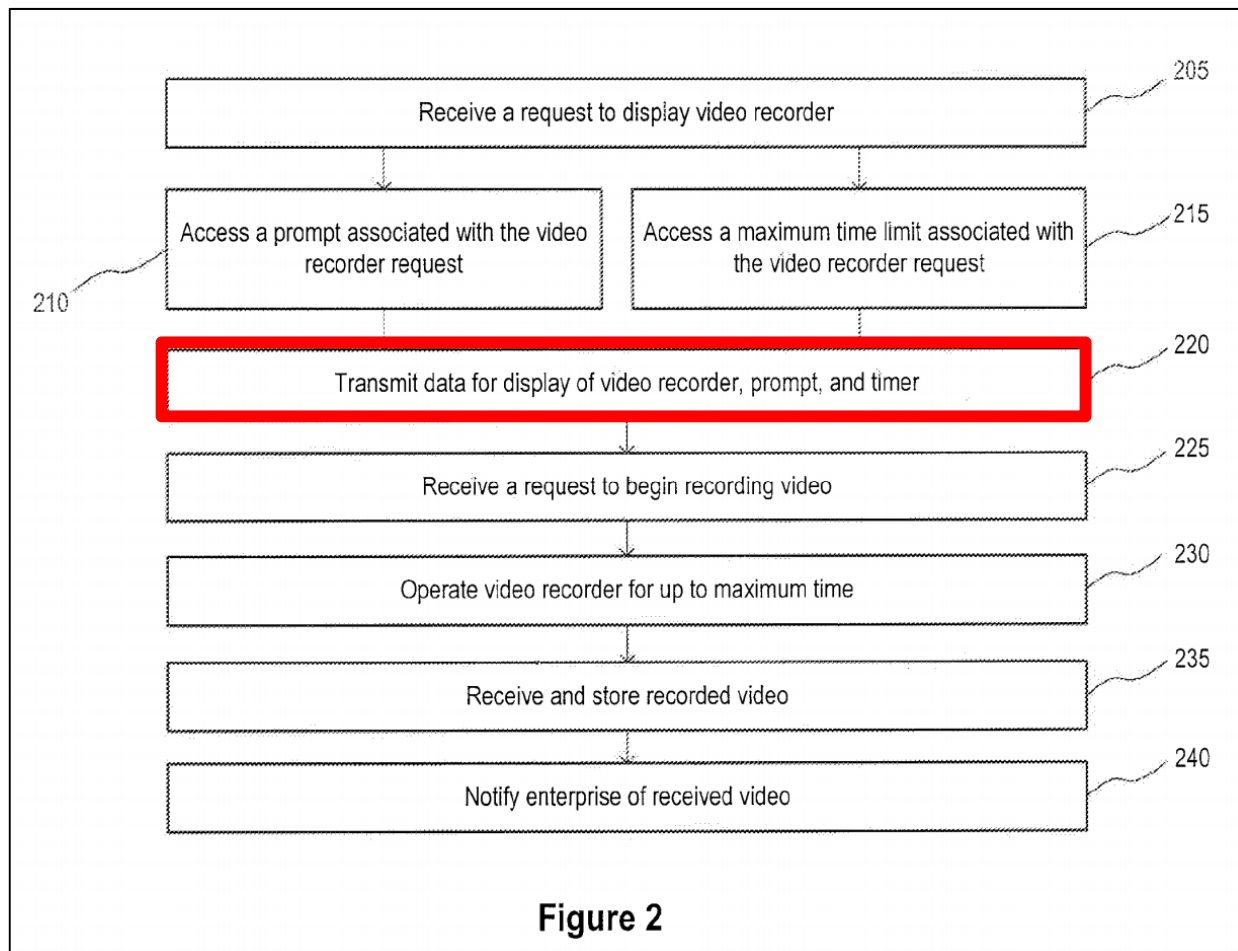
recording 125. Ex. 1009, ¶ 26.

133. After block 205 in Nassiri, in response to the request (e.g., in response to the user's clicking of the link), data is transmitted for display of a video recorder, prompt, and timer:

[I]n block 220[,] data for display of a video recorder, and any relevant timer and/or prompt may be transmitted to a contributor. This may be performed by the system of FIG. 1 by the video host computing system 120 transmitting the relevant data to the contributor computing system 130. In some examples, the data may be transmitted through the enterprise computing system 110 as an intermediary or if the contributor is using the enterprise computing system 110 directly, for example. *A contributor may now view on a display device a video recorder window which may have controls including start, stop, pause, or the like, and may also view the prompt and a timer, if applicable.* Ex. 1009, ¶ 32.

134. This is illustrated in Figure 2, as annotated below, in which Nassiri discloses that “display of video recorder” at step 220 occurs in response to “[r]eceive a request to display video recorder” (e.g., clicking the link) at step 205. Nassiri explains that the two steps between blocks 205 and 220 in Fig. 2, namely, blocks 210 and 215, provide a “prompt” and a “maximum time limit,” but are

explicitly optional, stating “[i]n some examples, neither [a prompt or time limit]
may be accessed.” Ex. 1009, ¶ 31. As shown in Figure 2:



Ex. 1009, FIG. 2 (annotated)

135. Further, as discussed below in more detail with reference to limitation [20.2.1], Nassiri discloses that “an HTML iframe may be used to embed a **video recorder** in a web page provide by the enterprise computing system.” Ex. 1009, ¶ 19.

136. Third, Bradford supplements Nassiri’s disclosure and expressly teaches how a specific iframe within a webpage can be targeted with a link, providing sample code:

```
<iframe name="terms" src="tnc.html">  
    <a href="tnc.html" target="_blank">View Terms and Conditions</a>  
</iframe>  
<a href="page2.html" target="terms">Next page</a>
```

Ex. 1010, p. 161.

137. In Bradford’s sample code, the iframe “name” attribute is “terms,” the source of the iframe is “tnc.html,” and the link (i.e., <a> anchor tag) is “Next page.” Bradford explains that “when the ‘Next page’ hyperlink text is clicked, the page2.html is loaded into the ‘terms’ inline frame.” Ex. 1010, p. 161. Accordingly, Bradford provides a coding example of using links to load content in inline frames within an already existing webpage. When Bradford’s teachings are considered in light of Nassiri, a POSITA would have understood that, for example, the link to the executable instructions for video recording on a webpage would target an iframe on the webpage using the target attribute, and the video recorder would be loaded inside the inline frame of the webpage having the name specified in the target attribute.

138. Therefore, Nassiri’s teaching of providing the video recorder interface (within the iframe) in response to a user selection of a link included in the webpage hosted by enterprise computing system 110 (which may be implemented as a web

server system), in combination with Bradford's teaching of providing updated content in an iframe in response to a user selecting/clicking a link included in the currently displayed webpage teaches providing the content capture user interface *"in response to a user selection of a link included in a graphical user interface that includes display elements hosted on the web server system."*

[20.2.1] wherein the content capture user interface is provided within a frame displayed in the first graphical user interface

139. Nassiri teaches limitation [20.2.1] of claim 20.

140. In particular, Nassiri teaches that "[a] **video recorder** accessible through the embedded or standalone link **may be displayed** on an input/output device 133" and that an "**HTML iframe may be used to embed a video recorder in a web page provided by the enterprise computing system."** Ex. 1009, ¶¶19, 26, FIG. 3. The '997 Patent uses an iframe in a similar manner. Ex. 1001, 14:32-34; FIG. 1B.

141. Therefore, Nassiri's video recorder interface that is embedded within an iframe displayed on the webpage discloses that *"the content capture user interface is provided within a frame displayed in the first graphical user interface."*
[20.2.2] and the content capture user interface is adapted to allow users to provide user submissions to a user content management server system using

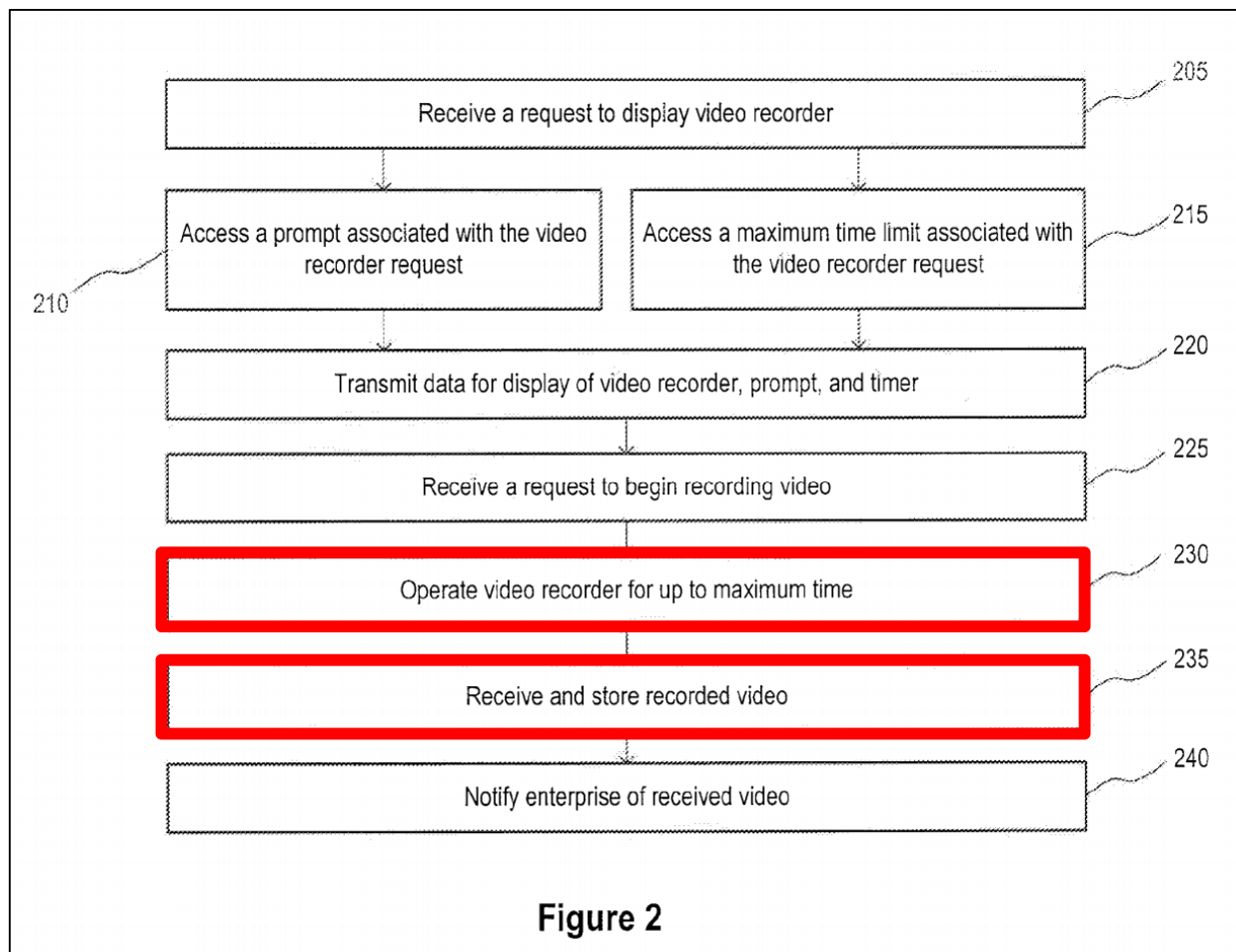
controls included within the frame that includes the content capture user interface,

142. Nassiri teaches limitation [20.2.2] of claim 20.

143. First, Nassiri teaches that video recorder user interface is adapted to allow users to transmit user generated videos to a video host computing system

120. In particular, Nassiri teaches that the “*video generated using the video recorder may be transmitted to the video host computing system 120*” and that the “*[r]eceived videos may be stored by the video host computing system 120*.” Ex.

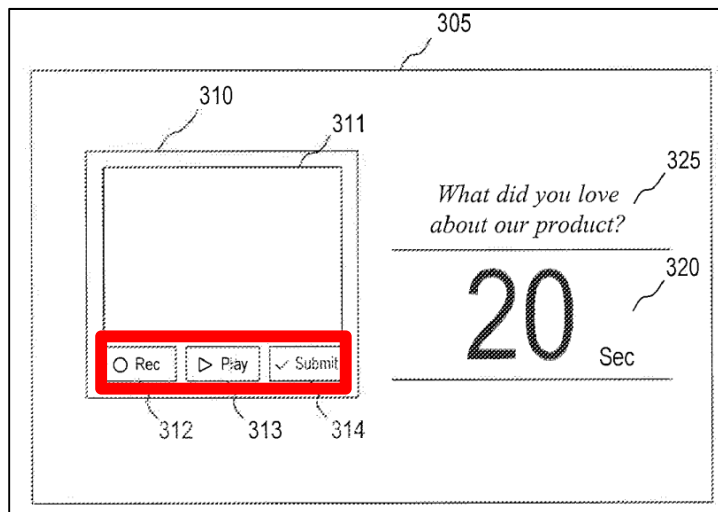
1009, ¶¶ 28 and 35. As discussed in the claim construction section above, a POSITA would have understood the term “*user submissions*” to include transmitted video content. Figure 2 of Nassiri depicts operating the video recorder interface and receiving of video, with particular reference to steps 230 and 235:



Ex. 1009, FIG. 2 (annotated)

144. Second, Nassiri teaches that the submitted video is captured using button controls included within the iframe that includes the video recorder. Nassiri states that video is “*generated using the video recorder*,” which has “*controls including start, stop, pause, or the like*” and “*record button 312, a play button 313, and a submit button 314.*” Ex. 1009, ¶ 28. Nassiri further describes that “record button 312, a play button 313, and a submit button 314...may be used to capture video and submit the video to the video host computing system.” Ex. 1009, ¶ 38. Further, Nassiri describes that the “user may...utilize the video recorder

functionality provided by the executable instructions for video recording 125” and that “[c]ontributing entities may include individual users. Ex. 1009, ¶¶ 26, 25. To capture and submit video, Nassiri explains that “press[ing] the start button” (or the “record button”) begins the video recording and “clicking a stop button” ends the video recording; thus, Nassiri describes the use of controls included within the frame that includes the video recorder interface. Ex. 1009, ¶¶ 33, 34, and 38, FIG. 3. Nassiri’s Figure 3, reproduced below and annotated, illustrates these buttons.



Ex. 1009, FIG. 3 (annotated).

145. Thus, Nassiri’s teaching that the video recorder interface is adapted to allow users to submit user generated videos to a video host computing system 120 (which may be implemented as a web server system) using button controls (such as the start/record and stop buttons), included within the iframe that includes the video recorder interface, teaches that “*the content capture user interface is adapted*

to allow users to provide user submissions to a user content management server system using controls included within the frame that includes the content capture user interface.”

[20.2.3] and the user submissions are captured using content capture software executing on the user content management server system

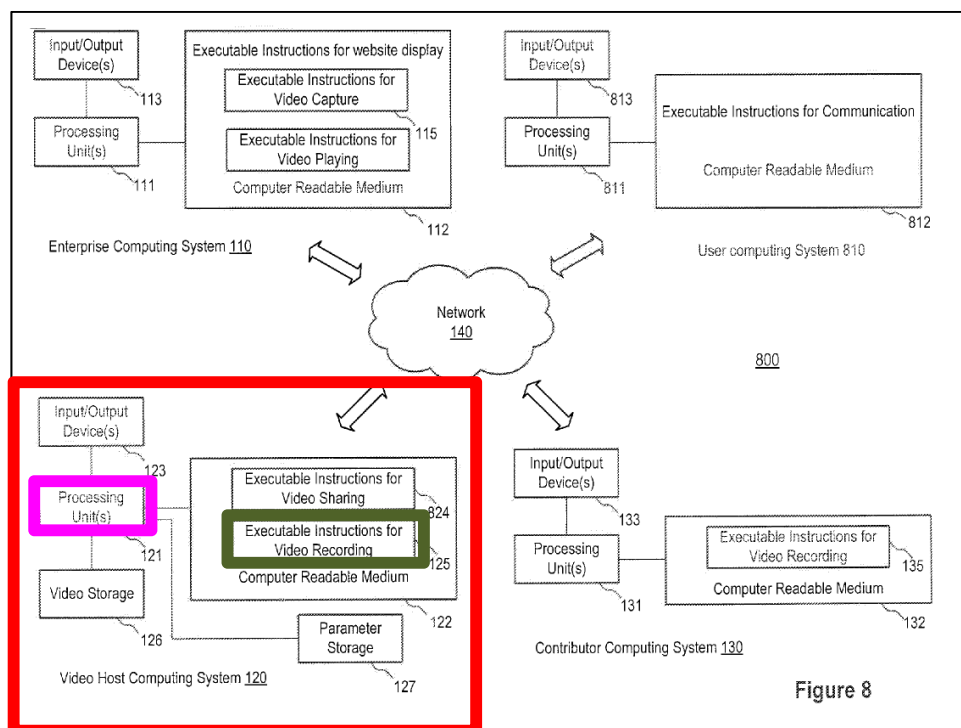
146. Nassiri teaches limitation [20.2.3] of claim 20.

147. First, Nassiri teaches that submitted videos are captured using executable instructions for video recording, which execute on processing units 121 of the video host computing system 120:

“The ***executable instructions for video recording*** 125 may operate in cooperation with the processing unit(s) 121 to provide a video recorder functionality. That is, the ***executable instructions for video recording*** 125 may allow the ***video host computing system*** 120 to provide video recorder functionality that may be accessed by one or more users, such as the contributor computing system 130.” Ex. 1009, ¶ 21.

As illustrated in Figs. 1 and 8 of Nassiri, the “video host computing system” has “processing unit(s) 121” executing “executable instructions for video recording” to provide a video recorder to “one or more users, such as the contributor computing system 130.” Thus, the processing units 121 of the video host computing system execute the executable instructions 125.

148. As illustrated in Figure 8, reproduced below with annotations, processing units 121, part of video host computing system 120, execute the executable instructions for video recording 125.



Ex. 1009, FIG. 8 (annotated)

149. In the context of Nassiri, a POSITA would have understood Nassiri's references to "recording" video as including capturing video, as Nassiri describes, with reference to FIG. 3, a video recorder that includes buttons like "record button 312" which "may be used to capture video." Ex. 1009, ¶ 38. Similarly, Nassiri states that "[v]ideo, as used herein, generally refers to electronically encoded data representing a captured video and/or audio data." Ex. 1009, ¶ 15.

150. Thus, Nassiri’s description that user submitted videos are captured using the executable instructions for video recording 125, which are executing on the processing units 121 of the video host computing system 120 teaches that “*user submissions are captured using content capture software executing on the user content management server system.*”

[20.2.4] through a communication interface between the web server system and the user content management server system

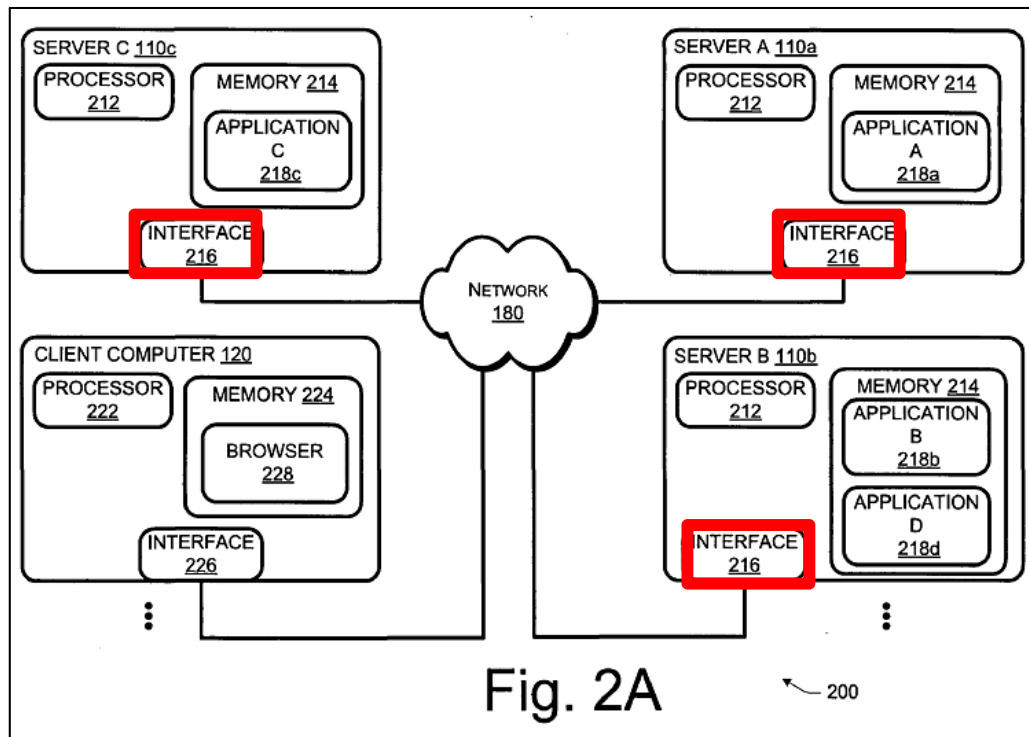
151. Nassiri in combination with the teachings of Zhu teach limitation [20.2.4] of claim 20.

152. First, Nassiri teaches that the “data for display of a video recorder” may be transmitted by the “***video host computing system...to the contributor computing system***” with “***the enterprise computing system 110 as an intermediary.***” Ex. 1009, ¶ 32, FIG. 8. Further, Nassiri at Figure 8 illustrates the video host computing system (*user content management server system*) and the enterprise computing system (*web server system*) as having interconnects (*communication interface[s]*) for communicating with each other through “network 140.” Ex. 1009, ¶ 16, FIG. 8.

153. Second, Zhu supplements Nassiri and teaches the use of communication interfaces for providing the content capture user interface by the content capture software. A POSITA would have understood that the claimed

“communication interface” in the ’997 Patent includes at least components which interface with a communication network, and APIs. Ex. 1001, 8:66-9:3, 20:32-34.

Zhu discloses that “*each application server [] includes . . . an interface 216 for enabling communication over network 180.*” Ex. 1013, ¶ 25, FIG. 2A. This is shown in Figure 2A, reproduced below and annotated.



Ex. 1013, FIG. 2A (annotated).

154. In addition to the interfaces 216 for enabling communication over the network, Zhu also discloses using “*APIs (Application Program Interfaces)* to create web mashups [which] overlays [] information provided by a first website [within a webpage] provided by a second website.” Ex. 1013, ¶ 1.

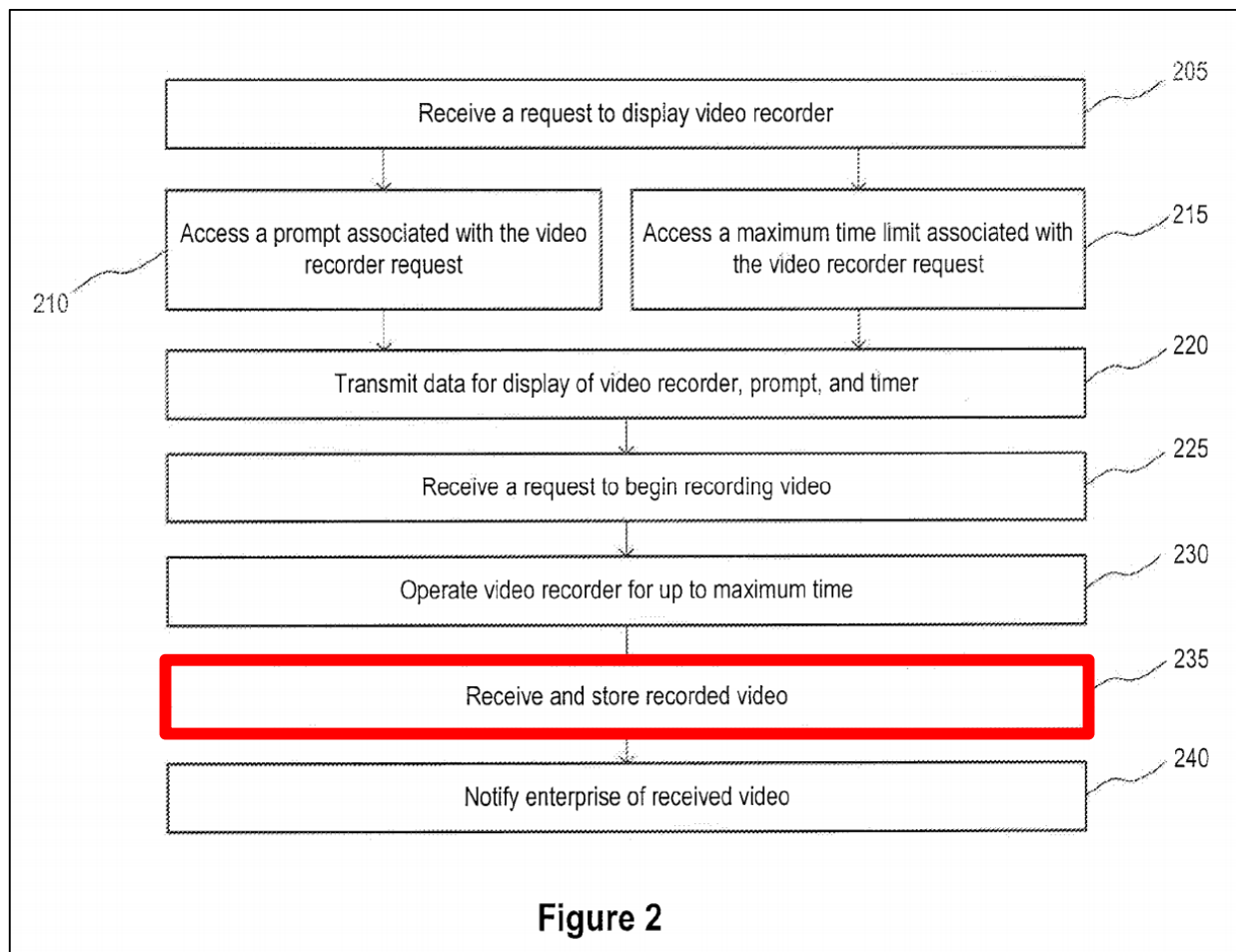
155. Thus, Nassiri’s teaching that the submitted user videos are captured through communication network interconnects between the video host computing system and the enterprise computing system (which acts as an intermediary), in combination with Zhu’s teaching that servers include a network interface and APIs for communication teaches that the user submissions are captured “*through a communication interface between the web server system and the user content management server system.*”

[20.3] receiving a plurality of user submissions,

156. Nassiri teaches limitation [20.3] of claim 20.

157. Nassiri teaches that “**videos may be captured by any number of contributors using** any number of computing systems.” Ex. 1009, ¶ 20. Nassiri also describes that the “video host computing system 120 may **receive and store videos from any number of contributor computing systems 130,**” and further explicitly mentions multiple videos, stating that “the “**[r]eceived videos may be stored by the video host computing system 120.**” Ex. 1009, ¶¶ 35, 37.

158. Figure 2, element 235 of Nassiri illustrates receiving video:



Ex. 1009, FIG. 2 (annotated)

159. Thus, Nassiri’s teaching of receiving videos submitted by any number of contributors teaches “*receiving a plurality of user submissions.*”

[20.4.1] wherein each user submission defines content captured through the content capture user interface on a respective displayed instance of the first graphical user interface

160. Nassiri teaches limitation [20.4.1] of claim 20.

161. First, Nassiri teaches that each user submitted video defines content captured through the video recorder interface. Nassiri states that the video is

“generated using the video recorder,” which has *“controls including start, stop, pause, or the like”* and *“record button 312, a play button 313, and a submit button 314.”* Ex. 1009, ¶ 28. Nassiri further explains that “press[ing] the start button” (or the “record button”) begins the video recording and “clicking a stop button” to ends the video recording. Ex. 1009, ¶¶ 33, 34, and 38, FIG. 3. Accordingly, the user submitted video defined content captured using controls (e.g., buttons) included in the video recorder interface. Ex. 1009, FIG.3. Figure 3 of Nassiri depicts examples of the “controls included in the video recorder interface,” including the aforementioned record button 312, play button 313, and submit button 314.

162. Nassiri also states, with reference to block 225 of Fig. 2, that “a request may be received to begin recording video. This may occur, for example, if a contributor presses the start button associated with the displayed video recording.” Ex. 1009, ¶ 33. Nassiri further teaches that its “video recorder functionality [] may be accessed by *one or more users*” and that there are a plurality of user submitted “*videos [that] may be stored by the video host computing system 120.*” Ex. 1009, ¶¶ 21, 28 and 35. Thus, each of the user submitted videos defines video content captured using controls (e.g., buttons) included in the video recorder interface, which teaches that “*each user submission defines content captured through the content capture user interface.*”

163. Second, as discussed above with reference to limitation [20.1.1], Nassiri teaches providing a video recorder user interface within displayed instances of a webpage. Further, a POSITA would have understood that, because the “video recorder functionality [] may be accessed by *one or more users*” to capture “*videos . . . using any number of computing systems*,” each user would be provided his or her own “*respective displayed instance*” of the webpage on the computing system display. Ex. 1009, ¶¶ 21, 37.

164. Thus, Nassiri’s teaching that each of the user submitted videos defines video content captured using controls (e.g., buttons) included in the video recorder interface on a respective displayed instance of the webpage teaches that “*each user submission defines content captured through the content capture user interface on a respective displayed instance of the first graphical user interface.*”
[20.4.2] and each user submission is captured using the content capture software executing on the user content management server system;

165. Nassiri teaches limitation [20.4.2] of claim 20.

166. As discussed above with reference to limitation [20.4.1], Nassiri teaches that each of the user submitted videos defines video content captured using the video recorder interface. Further, as discussed above with reference to limitation [20.2.3], Nassiri teaches that the user submitted videos are captured using the executable instructions for video recording 125 (which provide the video

recorder interface) that are executing on the processing units 121 of the video host computing system 120. Specifically, Nassiri teaches that the video recorder used to capture video is provided by “**executable instructions for video recording 125** ***[that] may operate in cooperation with the processing unit(s) 121 [of the video host computing system 120].***” Ex. 1009, ¶ 21, FIG. 8. Figs. 1 and 8 of Nassiri illustrate a “***video host computing system***” with a processor executing “***executable instructions for video recording***” to provide video recorder to “one or more users, such as the contributor computing system 130.” Ex. 1009, ¶ 21. A POSITA would have understood that the processing units 121 (on the video host computing system 120) execute the executable instructions 125 to provide video recording functionality. Ex. 1009, ¶ 16.

167. Thus, Nassiri’s executable instructions for video recording executing on the video host computing system teaches that “*each user submission is captured using the content capture software executing on the user content management server system.*”

[20.5] generating a plurality of user submission content files based on the received user submissions;

168. Nassiri teaches limitation [20.5] of claim 20.

169. Nassiri describes that “video ***generated using the video recorder*** may be transmitted to the video host computing system 120 for storage in video storage

126.” Ex. 1009, ¶ 28. Nassiri also teaches that “[r]eceived videos may be stored by the video host computing system 120.” Ex. 1009, ¶ 35. Nassiri further teaches that the video storage includes “a plurality of captured videos.” Ex. 1009, claim 1, ¶ 50, FIG. 7. Nassiri further explains that the “videos may generally be . . . *stored in any suitable file format*, including but not limited to, .mpeg files, or .avi files.” Ex. 1009, ¶ 15. A POSITA would have understood, and it would have been obvious that, when the video host computing system 120 stores the received videos in a file format, a plurality of video files are generated from the received user videos. Ex. 1009, ¶¶ 15, 28.

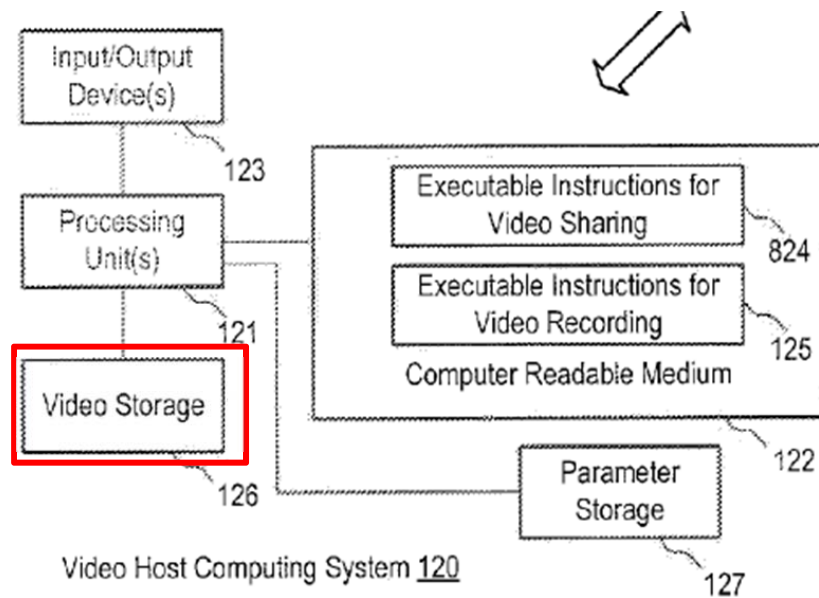
170. Also according to Nassiri, completed recordings are stored in video storage: “The *executable instructions for video recording* 125 may further include instructions for *receiving a completed video and storing the video in storage* accessible to the video host computing system 120, such as the video storage 126.” Ex. 1009, ¶ 21. Again, as Nassiri describes that the storage is “in any suitable file format,” a POSITA would understand “storing the video in storage” to include generation of the file in the suitable file format.

171. Thus, Nassiri generating a plurality of user submitted video files based on the received user submitted videos teaches “*generating a plurality of user submission content files based on the received user submissions*.”

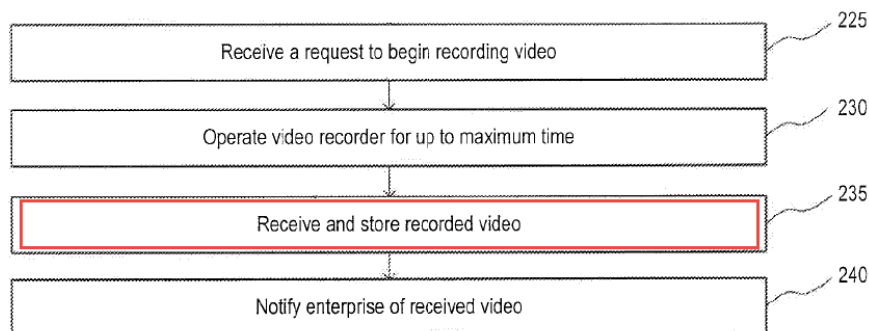
***[20.6] storing the user submission content files on the user content management
server system***

172. Nassiri teaches limitation [20.6] of claim 20.

173. Nassiri teaches that the “[r]eceived videos may be ***stored by the video host computing system 120***, for example in video storage 126.” Ex. 1009, ¶ 35; FIG. 1. As explained above at [20.5], according to Nassiri, completed recordings are stored in video storage: “The ***executable instructions for video recording 125*** may further include instructions for receiving a completed video and ***storing the video in storage*** accessible to the video host computing system 120, such as the video storage 126.” Ex. 1009, ¶ 21. Nassiri further explains that the “videos may generally be . . . ***stored in any suitable file format***, including but not limited to, .mpeg files, or .avi files.” Ex. 1009, ¶ 15; *see also* Fig. 8, Fig. 2. Also, as explained above with reference to limitation [20.5], Nassiri further teaches that the video storage includes “a ***plurality of captured videos***.” Ex. 1009, claim 1.



Ex. 1009, FIG. 8 (excerpted, annotated)



Ex. 1009, FIG. 2 (excerpted, annotated)

174. Thus, Nassiri storing the user submitted video files in video storage 126 on the video host computing system 120 teaches “*storing the user submission content files on the user content management server system.*”

b) Claim 21

[21.1] The computer storage medium of claim 20 wherein the user submissions are received by the user content management server system as the content is captured through the content capture user interface

175. Nassiri teaches limitation [21.1] of claim 21.

176. Nassiri teaches that video submissions are received by the video host computing system as the video is captured through the video recorder interface. For instance, Nassiri discloses that the “***video generated using the video recorder may be transmitted to the video host computing system 120 for storage in video storage 126... while it is being recorded***” and the “***[r]eceived videos may be stored by the video host computing system 120.***” Ex. 1009, ¶¶ 28 and 35. As described above with reference to limitation [20.1.1], in the context of Nassiri, a POSITA would have understood Nassiri’s references to “recording” video as including capturing video, as Nassiri describes, with reference to FIG. 3, a video recorder that includes buttons like “record button 312” which “may be used to ***capture video.***” Ex. 1009, ¶ 38. Similarly, Nassiri states that “[v]ideo, as used herein, generally refers to electronically encoded data representing a captured video and/or audio data.” Ex. 1009, ¶ 15.

177. Thus, Nassiri’s teaching that video submissions are received by the video host computing system as the video is captured through the video recorder

interface teaches that “*the user submissions are received by the user content management server system as the content is captured through the content capture user interface.*”

c) Claim 22

[22.1] The computer storage medium of claim 20 wherein the user submissions comprise video captured using the content capture user interface and the content capture software comprises video recorder software.

178. Nassiri teaches limitation [22.1] of claim 22.

179. First, as discussed above with reference to limitations [20.2.2] and [20.3], Nassiri teaches that the user submissions comprise video captured using the video recorder interface.

180. Second, as discussed above with reference to limitation [20.2.3], Nassiri teaches that the content capture software comprises video recorder software, specifically, executable instructions for video recording.

181. Therefore, Nassiri teaches that “*the user submissions comprise video captured using the content capture user interface and the content capture software comprises video recorder software.*”

d) Claim 23

[23.1] The computer storage medium of claim 20 wherein the user content management server system is external to the web server system and the first graphical user interface comprises a first webpage.

182. Nassiri teaches limitation [23.1] of claim 23.

183. First, Nassiri teaches that the video host computing system 120 (the “*user content management server system*”) is external from the enterprise computing system 120 (the “*web server system*”), describing that “[t]he computing system [120] . . . may be ***separated*** from the enterprise’s computing system [110]” and further stating that there may be “***distinct computing systems 110, 120.***” Ex. 1009, ¶¶ 16, 37. This is depicted, for example, in Nassiri’s FIG. 8, in which the enterprise computing system 110 is depicted as external to the video host computing system 120.

184. Second, as discussed with reference to limitation [20.1.1], Nassiri teaches that the first graphical user interface comprises a first webpage.

185. Therefore, Nassiri’s teachings of a separate video host computing system and enterprise computing system, and of a webpage, teaches “*the user content management server system is external to the web server system and the first graphical user interface comprises a first webpage.*”

e) **Claim 24**

[24.0] The computer storage medium of claim 20 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

186. Nassiri teaches limitation [24.0] of claim 24, as discussed with reference to the preamble of claim 20.

[24.1.1] providing a selected stored user submission content file for display

187. Nassiri teaches limitation [24.1.1] of claim 24.

188. First, Nassiri teaches selecting the stored video file. According to Nassiri, the video recording interface includes “a ‘share’ button to allow for *sharing the video to another webpage or account. . .*” Ex. 1009, ¶ 51. Nassiri also states that “the video host computing system 120 may allow an enterprise to *share a selected video or videos* directly to another website....associated with the enterprise.” Ex. 1009, ¶ 56. Nassiri describes that, “[i]n this manner, a single click (or touch in some examples) may be used to add a particular video.” Ex. 1009, ¶ 51; *see also id.* ¶¶ 56, 64-66. A POSITA would have understood that selecting the stored video file (clicking a “share” button) is “selecting” the stored video file, or a “selected stored user submission content file.”

189. Second, Nassiri teaches providing the selected stored video file for display. Nassiri teaches that “the user computing system 810 may be used to . . . ***display videos stored by the video host computing system 120.***” Ex. 1009, ¶ 55.

190. Thus, Nassiri providing the selected stored video file for display, teaches “*providing a selected stored user submission content file for display.*” ***[24.1.2] within a plurality of displayed instances of one or more webpages hosted on one or more web server systems external to the user content management server system.***

191. Nassiri teaches limitation [24.1.2] of claim 24.

192. First, for instance, Nassiri discloses that the share button may “***allow for sharing the video to another webpage***” such as the “***enterprise website***” which may be “be implemented as all or a portion of a ***web server system.***” Ex. 1009, ¶¶ 17, 56, 51. Nassiri further teaches keeping track of “***videos [that] where were viewed more frequently***” on these webpages. Ex. 1009, ¶ 61. Nassiri’s disclosure of frequent viewing of stored videos on another webpage of the enterprise website, discloses that the stored video file is provided for display “*within a plurality of displayed instances of one or more webpages.*” Also, a POSITA would have understood that a webpage on the enterprise website would be visited by multiple users or would be visited multiple times, as each view of a video includes a visit to the page displaying the video, and multiple views of a video thus results in

multiple visits to the webpage and multiple displayed instances of the webpage.

Nassiri's disclosure that the "enterprise computing system 110" can be

"implemented as all or a portion of a web server system" discloses "*one or more web server systems.*" Ex. 1009, ¶ 17.

193. Second, Nassiri teaches that the video host computing system 120 (the "*user content management server system*") is external from the enterprise computing system 120 (the "*web server system*"), describing that "[t]he computing system [120] . . . may be ***separated*** from the enterprise's computing system [110]" and further stating that there may be "***distinct computing systems 110, 120.***" Ex. 1009, ¶¶ 16, 37. This is depicted, for example, in Nassiri's FIG. 8, in which the enterprise computing system 110 is depicted as external to the video host computing system 120.

194. Therefore, Nassiri providing stored videos for display within a plurality of displayed instances of webpages hosted on one or more web server systems (e.g., the enterprise computing system 110) external to the video host computing system 120 teaches that the stored video is provided for display "*within a plurality of displayed instances of one or more webpages hosted on one or more web server systems external to the user content management server system.*"

f) Claim 25

[25.1] The computer storage medium of claim 24 wherein the one or more external web server systems include the web server system that hosts the display elements included on the first graphical user interface.

195. Nassiri teaches limitation [25.1] of claim 25.

196. As discussed above with reference to limitations [20.1.1]-[20.1.2] and [24.1.2], Nassiri’s enterprise computing system 110 (“*the one or more external web server systems*”) hosts the display elements (e.g., timer 320 and prompt 325) included on the webpage (the “*first graphical user interface*”), and hosts the “another webpage” at which a video may be shared for display.

197. Thus, Nassiri’s teaching that the enterprise computing system 110 also hosts the display elements included on the webpage teaches that “*the one or more external web server systems include the web server system that hosts the display elements included on the first graphical user interface.*”

g) Claim 26

[26.1] The computer storage medium of claim 25 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising

198. Nassiri teaches limitation [26.1] of claim 26, as discussed with reference to the preamble of claim 20.

***[26.2] receiving, at the external user content management server system,
information associated with user accounts for a plurality of displayed instances
of one or more webpages hosted on the one or more external web server systems.***

199. Nassiri teaches limitation [26.2] of claim 26.

200. Nassiri teaches receiving, at the video host computing system, information associated with a user account, since it describes that an enterprise representative may “log[] into an account with the video host computing system 120.” Ex. 1009, ¶ 45. Nassiri further discloses that enterprises may log into an account with the video host computing system to establish campaigns that allow for submission of videos using the video recorder, and to create unique links for submitting videos for the campaign. *See, e.g.*, Ex. 1009, ¶¶ 20-22, 42-47. Fig. 5 of Nassiri also discloses account storage 515, which is part of the video host computing system 120. Ex. 1009, FIG. 5, ¶ 44. A POSITA would have understood that, because “video recorder functionality [] may be accessed by ***one or more users***” to capture “videos . . . using ***any number of computing systems***” there would be information associated with user accounts associated for a ***plurality*** of displayed instances of one or more webpages that provide the video recorder interface. Ex. 1009, ¶¶ 21, 37.

201. Further, as discussed above with reference to limitations [20.1.1]-[20.1.2], Nassiri teaches that the webpages (which provide the video recorder

interface) are hosted on enterprise computing system 110, which as discussed at [24.1.2] is external to the video host computing system 120.

202. As discussed with reference to limitation [20.1.1], Nassiri's video recorder, which is used by a contributor to record and submit videos, is included within the *displayed instance of the first graphical user interface*. As discussed above with reference to limitation [20.1.3], Nassiri's video recorder software is accessible through a link, to provide the embedded video recorder in an iframe within *one or more webpages*. With respect to the link, Nassiri discloses that "each campaign may have a unique...link for submitting videos" which is used "to embed [the video recorder] in a website or other content providing application of the enterprise." Ex. 1009, ¶¶ 45, 47. Accordingly, Nassiri's login information ("*the information associated with user accounts*") is for a plurality of displayed instances of one or more webpages, because the login information facilitates the creation of the link which provides the embedded video recorder in the webpage.

203. Thus, Nassiri's teaching of receiving, at the video host computing system 120, login information associated with accounts for a plurality of displayed instances of one or more webpages (which have the video recorder) hosted on enterprise computing system 110, teaches "*receiving, at the external user content management server system, information associated with user accounts for a*

plurality of displayed instances of one or more webpages hosted on the one or more external web server systems.”

h) Claim 27

[27.1] The computer storage medium of claim 24 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

204. Nassiri teaches limitation [27.1] of claim 27, as discussed with reference to the preamble of claim 20.

[27.2] monitoring viewer response to the user submission content file;

205. Nassiri teaches limitation [27.2] of claim 27.

206. First, Nassiri teaches that “*information regarding a video may also be stored including but not limited to, the number of likes or other hits the video has received.*” Ex. 1009, ¶ 61. Nassiri teaches, in connection with Figure 9, that “[t]he *aforementioned rates and statistics [i.e., number of likes] may be gathered and stored by the video host computing system.*” Ex. 1009, ¶ 64. Nassiri further explains that the “*executable instructions for video sharing 824 of FIG. 8 may include instructions for performing some or all of the steps shown in FIG. 9.*” Ex. 1009, ¶¶ 61-62, FIGS. 8 and 9. With reference to Fig. 9, Nassiri describes that the like rate and other “rates and statistics may be gathered and stored by the video host computing system.” Ex. 1009, ¶ 62. Nassiri also describes that the “executable

instructions for video sharing may include instructions for recording a number of views each video has received” and states that “[o]ther information regarding a video may also be stored including...the number of likes...” Ex. 1009, ¶ 61. A POSITA would have understood that monitoring the number of “likes” is “*monitoring viewer response*,” consistent with the ’997 Patent, which describes that a “user/viewer rating can include number of ‘Likes’.” Ex. 1001, 17:43-45.

207. Figure 10 of Nassiri, reproduced below and annotated, shows recording of the number of likes a video has received.

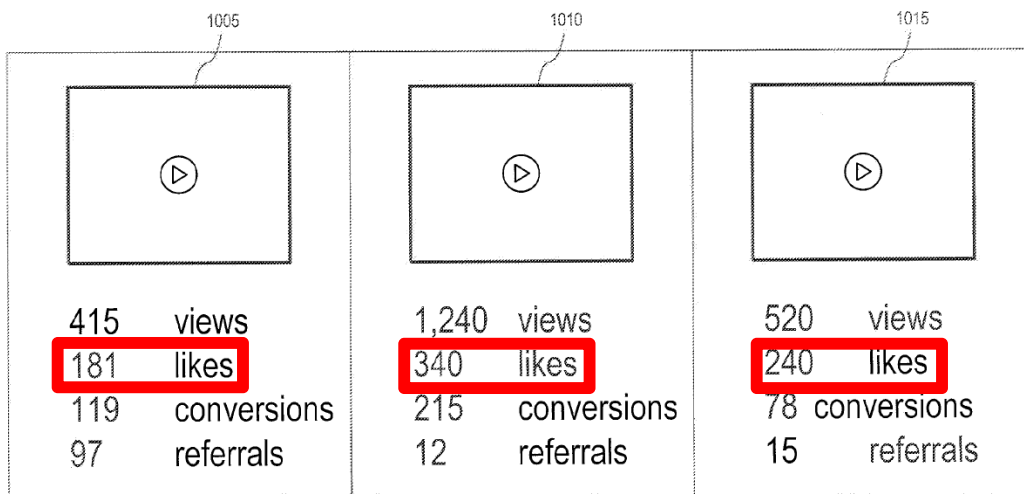


Figure 10

Ex. 1009, FIG. 10 (annotated)

208. Therefore, Nassiri monitoring statistics/viewer likes to the video file teaches “*monitoring viewer response to the user submission content file*.”

[27.3] using the viewer response in selecting the user submission content file for inclusion on a webpage hosted on a web server system external to the user content management server system; and

209. Nassiri teaches limitation [27.3] of claim 27.

210. First, Nassiri teaches using the number of likes to select a video for playback, or to determine how likely a video is to be selected for display, on a webpage hosted on the enterprise computing system 110. For example, Nassiri discloses that “[v]ideos may be selected for playback or display in an order that may be based on this information [e.g., number of likes]” and also describes that “[t]he user of the user computing system 810 may view a website hosted by the enterprise computing system 110 and may thereby request one or more videos for playback.” Ex. 1009, ¶¶ 61-63. Nassiri further explains that “the video host computing system 120 may allow an enterprise to share a selected video or videos directly to another website or content provider associated with the enterprise. For example, a user of the enterprise computing system 110 or other representative of an enterprise may log in to the video host computing system and share captured videos on facebook, twitter, YouTube, their own enterprise website.” Ex. 1009, ¶ 56.

211. Nassiri also discloses sharing videos to viewers where the “order of video playback” or the “order in which videos are displayed for user selection” is

affected by “which videos have been viewed the most.” Ex. 1009, ¶ 64. Nassiri further discloses that the “order of playback...may be determined based on... ‘like’ rate.” Ex. 1009, ¶ 52.

212. The website hosted by the enterprise computing system 110, which shares the captured videos based on the number of likes is “*a webpage hosted on a web server system.*” Ex. 1009, ¶¶ 61-63, 72. A POSITA would have understood, therefore, that the number of likes of a video is used in the determination of whether the video is selected to be included/displayed in the webpage hosted by the enterprise computing system. Also, a POSITA would have understood and it would have been obvious that because a webpage can only display a finite number of videos, the video files with the greatest number of likes will be selected for display on the webpage hosted by the enterprise computing system.

213. Second, as discussed above with reference to limitation [24.1.2], Nassiri’s enterprise computing system 110 (the “*web server system*”) is external to video host computing system 120 (the “*user content management server system*”).

214. Therefore, Nassiri using the number of likes to select a video for playback, or to determine how likely a video is to be selected for display, on a webpage hosted on the enterprise computing system 110 that is external to video host computing system 120, teaches “*using the viewer response in selecting the*

*user submission content file for inclusion on a webpage hosted on a web server
system external to the user content management server system.”*

***[27.4] providing, in response to the selection of the user submission content file
for inclusion on the webpage, the stored user submission content file for display
within a plurality of displayed instances of the webpage.***

215. Nassiri teaches limitation [27.4] of claim 27.

216. First, Nassiri discloses that “**[v]ideos may be selected** for playback or **display** in an order that may be **based on this information [e.g., number of likes]**” and also describes that “[t]he user of the user computing system 810 may view a **website** hosted by the enterprise computing system 110 and may thereby request one or more videos for playback.” Ex. 1009, ¶¶ 61-63. Nassiri also discloses that videos may be shared or displayed to a plurality of users through a webpage hosted by the enterprise computing system 110, describing, for example, sharing videos to viewers where the “order of video playback” or the “order in which videos are displayed for user selection” is affected by “which videos have been viewed the most.” Ex. 1009, ¶ 64; *see also* ¶¶ 56, 62-63.

217. Nassiri teaches that “the user computing system 810 may be used to . . . **display videos** stored by the video host computing system 120.” Ex. 1009, ¶ 55. To display videos, Nassiri explains that the video host computing system 120 includes executable instructions for video sharing to generate a media player:

In other examples, a *video player may be displayed for a user to view approved videos*. The *video player* may be displayed on a stand-alone site or other content providing application, or may in some examples be embedded in an enterprise's own website or other content providing application. For example, the computer readable medium 112 (or another computer readable medium in communication with the processing unit(s) 111) may include executable instructions for video playing 840. *The executable instructions for video playing 840 may be generated by the video host computing system 120...by the processing unit(s) 121 in cooperation with the executable instructions for video sharing 824*. . . . The instructions may include, for example, instructions for an iframe on an enterprise website that may direct a user to *videos hosted and played by the video host computing system 120*.” Ex. 1009, ¶ 57.

218. Nassiri further teaches keeping track of “*videos [that] were viewed more frequently*” on webpages. Ex. 1009, ¶ 61. Nassiri’s disclosure of frequent viewing of stored videos on one or more webpages of the enterprise website, discloses that the stored video file is provided for display “*within a plurality of displayed instances of the webpage*.” Also, a POSITA would have understood that a webpage on the enterprise website would be visited by multiple users or would be visited multiple times. As Nassiri teaches multiple videos, and multiple views of videos, a POSITA would have understood and it would have been obvious that

because Nassiri's videos are provided for display to a **plurality** of users through a webpage hosted by the enterprise computing system 110, and further, that the videos are provided for display "*within a plurality of displayed instances of the webpage.*"

219. Therefore, Nassiri providing, in response to the selection of the stored video file for inclusion on the webpage, the stored video file for display, within a plurality of displayed instances of the webpage hosted by the enterprise computing system 110, teaches "*providing, in response to the selection of the user submission content file for inclusion on the webpage, the stored user submission content file for display within a plurality of displayed instances of the webpage.*"

i) Claim 29

[29.1] The computer storage medium of claim 23 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

220. Nassiri teaches limitation [29.1] of claim 29, as discussed with reference to the preamble of claim 20.

[29.2] receiving, at the external user content management server system, information associated with a user account for the displayed instance of the first graphical user interface.

221. Nassiri teaches limitation [29.2] of claim 29. As discussed with reference to limitation [26.2], above, Nassiri teaches the receipt at the video host computing system 120 of login information associated with user accounts for the displayed instance of the webpage, which teaches “*receiving, at the external user content management server system, information associated with a user account for the displayed instance of the first graphical user interface.*”

j) Claim 31

222. The subject matter of claim 31 is very similar to that of claim 20. There are minor differences between the two claims, which are illustrated in the below side-by-side comparison. Differences between the claims are underlined in red.

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997

20. A non-transitory computer storage medium encoded with a computer program, the program comprising instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

providing a content capture user interface within displayed instances of a first graphical user interface that includes display elements hosted on a web server system in response to a user selection of a link included in a graphical user interface that includes display elements hosted on the web server system, wherein the content capture user interface is provided within a frame displayed in the first graphical user interface and the content capture user interface is adapted to allow users to provide user submissions to a user content management server system using controls included within the frame that includes the content capture user interface, and the user submissions are captured using content capture software executing on the user content management server system through a communication interface between the web server system and the user content management server system;

receiving a plurality of user submissions, wherein each user submission defines content captured through the content capture user interface on a respective displayed instance of the first graphical user interface and each user submission is captured using the content capture software executing on the user content management server system;

generating a plurality of user submission content files based on the received user submissions; and

storing the user submission content files on the user content management server system.

31. A system comprising:

one or more user content management servers operable to interact with a plurality of user devices and to:

provide a content capture user interface within displayed instances of a first graphical user interface that includes display elements hosted on a web server system in response to a user selection of a link included in a graphical user interface that includes display elements hosted on the web server system, wherein the content capture user interface is provided within a frame displayed in the first graphical user interface and the content capture user interface is adapted to allow users to provide user submissions using controls included within the frame that includes the content capture user interface, and the user submissions are captured using content capture software executing on one or more of the user content management servers through a communication interface between the web server system and the one or more user content management servers;

receive a plurality of user submissions, wherein each user submission defines content captured through the content capture user interface on a respective displayed instance of the first graphical user interface and each user submission is captured using the content capture software executing on the one or more user content management servers;

generate a plurality of user submission content files based on the received user submissions; and
store the user submission content files on the user content management server system.

Accordingly, because the subject matter of the claims is so similar, the analysis of claim 20, above, applies equally to claim 31. Specifically, the analysis of claim 20's "user content management server system" applies to claim 31's "one or more user content management servers." Likewise, the analysis of claim 20's "providing," "receiving," "generating," and "storing," steps applies to claim 31's "one or more user content management servers operable to" "provide," "receive," "generate," and "store," respectively. Element-by-element analysis of claim 31 follows.

[31.0.1] A system comprising: one or more user content management servers

223. Nassiri teaches limitation [31.0.1] of claim 31.

224. Specifically, Nassiri describes “**system 100**” with “**video host computing system 120**,” which “may be implemented as any of a variety of devices including, but not limited to, **server systems...**” Ex. 1009, ¶ 16.

Accordingly, Nassiri teaches “*a system comprising: one or more user content management servers.*”

[31.0.2] operable to interact with a plurality of user devices and to:

225. Nassiri teaches limitation [31.0.2] of claim 31.

226. Nassiri describes that the video host computing system and contributor computing systems (the “*user devices*”) interact, stating that “**video host computing system 120** may receive and store videos from **any number of contributor computing systems 130**” and further, that the executable instructions for video recording “allow the **video host computing system 120** to provide video recorder functionality that may be accessed by one or more users, such as the **contributor computing system 130**.” Ex. 1009, ¶¶ 20, 21.

227. Thus, Nassiri’s teaching of the video host computing system receiving and storing videos from contributor computing systems teaches “*operable to interact with a plurality of user devices.*”

[31.1.1] provide a content capture user interface within displayed instances of a first graphical user interface

228. For the reasons set forth above with respect to limitation [20.1.1],
Nassiri teaches limitation [31.1.1] of claim 31.

[31.1.2] that includes display elements hosted on a web server system

229. For the reasons set forth above with respect to limitation [20.1.2],
Nassiri teaches limitation [31.1.2] of claim 31.

[31.1.3] in response to a user selection of a link included in a graphical user interface that includes display elements hosted on the web server system

230. For the reasons set forth above with respect to limitation [20.1.3],
Nassiri and Bradford teach limitation [31.1.3] of claim 31.

[31.2.1] wherein the content capture user interface is provided within a frame displayed in the first graphical user interface

231. For the reasons set forth above with respect to limitation [20.2.1],
Nassiri teaches limitation [31.2.1] of claim 31.

[31.2.2] and the content capture user interface is adapted to allow users to provide user submissions using controls included within the frame that includes the content capture user interface,

232. For the reasons set forth above with respect to limitation [20.2.2],
Nassiri teaches limitation [31.2.2] of claim 31.

***[31.2.3] and the user submissions are captured using content capture software
executing on one or more of the user content management servers***

233. For the reasons set forth above with respect to limitation [20.2.3],
Nassiri teaches limitation [31.2.3] of claim 31.

***[31.2.4] through a communication interface between the web server system and
the one or more user content management servers;***

234. For the reasons set forth above with respect to limitation [20.2.4],
Nassiri and Zhu teach limitation [31.2.4] of claim 31.

[31.3] receive a plurality of user submissions,

235. For the reasons set forth above with respect to limitation [20.3],
Nassiri teaches limitation [31.3] of claim 31.

***[31.4.1] wherein each user submission defines content captured through the
content capture user interface on a respective displayed instance of the first
graphical user interface***

236. For the reasons set forth above with respect to limitation [20.4.1],
Nassiri teaches limitation [31.4.1] of claim 31.

***[31.4.2] and each user submission is captured using the content capture
software executing on the one or more user content management servers;***

237. For the reasons set forth above with respect to limitation [20.4.2],
Nassiri teaches limitation [31.4.2] of claim 31.

[31.5] generate a plurality of user submission content files based on the received user submissions; and

238. For the reasons set forth above with respect to limitation [20.5],
Nassiri teaches limitation [31.5] of claim 31.

[31.6] store the user submission content files on the user content management server system.

239. For the reasons set forth above with respect to limitation [20.6],
Nassiri teaches limitation [31.6] of claim 31.

k) Claim 32

[32.1] The system of claim 31 wherein the user submissions comprise user-generated video content

240. Nassiri teaches limitation [32.1] of claim 32. As discussed above with reference to limitations [20.2.2] and [20.4.2], Nassiri teaches, for example, that “video recorder functionality [] may be accessed by one or more users” and “videos may be captured by any number of contributors using any number of computing systems.” Ex. 1009, ¶¶ 20-21.

241. Thus, Nassiri’s description of video recorder functionality accessed by users, and videos captured by contributors, teaches that “*user submissions comprise user-generated video content.*”

[32.2] and the user-generated video content is received by the one or more user content management servers as the content is captured through the content capture user interface.

242. Nassiri teaches limitation [32.2] of claim 32. As discussed above with reference to limitation [21.1], Nassiri teaches that user submissions are “***received by the one or more user content management servers as the content is captured through the content capture user interface,***” and as discussed above with reference to limitation [32.1], Nassiri teaches that the user submissions are “*user-generated video content,*” which therefore discloses that “*the user-generated video content is received by the one or more user content management servers as the content is captured through the content capture user interface.*”

1) Claim 34

[34.1] The system of claim 31 wherein the one or more user content management servers are further operable to: provide a selected stored user submission content file for display within a plurality of displayed instances of one or more webpages hosted on one or more web server systems;

243. Nassiri teaches limitation [34.1] of claim 34.

244. As discussed above with reference to limitation [24.1.1], Nassiri teaches providing a selected stored user submission content file for display.

Further, as discussed above with reference to limitation [24.1.2], the display of the

user submission content file is within a plurality of displayed instances of one or more webpages hosted on one or more web server systems. Accordingly, Nassiri teaches “*the one or more user content management servers are further operable to: provide a selected stored user submission content file for display within a plurality of displayed instances of one or more webpages hosted on one or more web server systems.*”

[34.2] monitor viewer response to the selected user submission content file;

245. Nassiri teaches limitation [34.2] of claim 34.

246. As discussed above with reference to limitation [27.2], Nassiri teaches the monitoring of viewer “likes” to a video. In the ’997 Patent, “viewer responses include...providing a rating” and a “rating can include number of ‘Likes’.” Ex. 1001, 3:45-48, 17:43-45. Thus, Nassiri’s teaching of monitoring likes to a video teaches “*monitor viewer response to the selected user submission content file.*” Ex. 1009, ¶ 61.

[34.3] use the viewer response in selecting the user submission content file for inclusion on an additional webpage; and

247. Nassiri teaches limitation [34.3] of claim 34.

248. As discussed above with reference to limitation [27.3], Nassiri teaches the use of the number of likes for determining a video for playback on a webpage (i.e., an “*additional webpage*”) hosted on the enterprise computing system 110,

which teaches “*use the viewer response in selecting the user submission content file for inclusion on an additional webpage.*”

[34.4] provide, in response to the selection of the user submission content file for inclusion on the additional webpage, the stored user submission content file for display within a plurality of displayed instances of the additional webpage.

249. Nassiri teaches limitation [34.4] of claim 34.

250. As discussed above with reference to limitation [27.4], Nassiri teaches “*provide, in response to the selection of the user submission content file for inclusion on the additional webpage, the stored user submission content file for display within a plurality of displayed instances of the additional webpage.*”

m) Claim 35

[35.1] The system of claim 31 wherein the first graphical user interface comprises a first webpage.

251. Nassiri teaches limitation [35.1] of claim 35.

252. As discussed above with reference to limitation [21.1.1], Nassiri teaches that the first graphical user interface comprises a first webpage hosted by the enterprise computing system 110, which teaches “*the first graphical user interface comprises a first webpage.*”

**B. Ground 2: Claims 28, 30, and 33 are Obvious Over the
Combination of Nassiri, Bradford, Zhu, and Tosh.o**

253. It is my opinion that the combined teachings of the Nassiri, Bradford, Zhu, and Tosh.o references teach, to a POSITA the subject matter of each and every limitation of claims 28, 30, and 33 of the '997 Patent.

1. The Prior Art References and Motivation to Combine

a) Background on Tosh.o

254. The New York Times article titled “Their Pain Is His Gain,” was published on August 22, 2010. The article features a television show called Tosh.0 that is hosted by Mr. Daniel Tosh. The Tosh.0 television show aired on Comedy Central and featured viral Internet video clips. Ex-1017, pp. 2-3. The short videos may be submitted by viewers if they are “Short” (e.g., 15-seconds) “Legal to put on TV” and “Good quality.” *Id.*

b) Reasons to Combine Nassiri and Bradford

255. It is my opinion that a POSITA would have had looked to and considered the teachings of Nassiri and Tosh.o because they both address the problem of displaying videos. Ex-1017, pp. 2-3; Ex-1009, ¶¶61-63, Title.

256. Nassiri recognizes that it is desirable to broaden the distribution of videos. Ex-1009, ¶3. To achieve this objective, Nassiri teaches displaying submitted videos on a “set top box” based on popularity, e.g., number of likes. Ex-1009, ¶¶16, 61-63. Tosh.o supplements Nassiri and teaches including popular/viral

Internet videos in a television show. Ex-1017, p. 2. It was known in the art that a set top box, like the one disclosed in Nassiri, can be connected to a television for displaying traditional television programming.

257. A POSITA would have recognized that including user submitted videos in a television program allows for an efficient way to broaden the distribution of the videos. Accordingly, it would have been obvious and desirable to include Nassiri's videos in traditional television programming, as Tosh.o teaches, because the videos would be displayed to a wider segment of the public via commonly utilized set top boxes, thereby "broadening the distribution" of its videos. Ex-1009, ¶3.

2. Unpatentability Analysis of Claims 28, 30, and 33

a) Claim 28

[28.1] The computer storage medium of claim 24 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

258. Nassiri teaches limitation [28.1] of claim 28, as discussed with reference to the preamble of claim 20.

[28.2] monitoring viewer response to the user submission content file; and

259. Nassiri teaches limitation [28.2] of claim 28. As discussed with reference to limitation [27.2], Nassiri describes monitoring or tracking of "likes" to

a video file. In the '997 Patent, “viewer response” as recited is described as follows: “viewer responses include...providing a rating” and a “rating can include number of ‘Likes’.” Ex. 1001, 3:45-48, 17:43-45.

260. Thus, Nassiri teaches “*monitoring viewer response to the user submission content file.*”

[28.3] using the viewer response in selecting user submission content defined in the user submission content file

261. Nassiri teaches limitation [28.3] of claim 28. As discussed with reference to limitation [28.3], Nassiri describes the use of the number of likes in selecting a video file for display. A POSITA would have understood, and found it obvious, that the user submission content file defines the user submission content, for example, as Nassiri discloses that “videos may generally be...stored in any suitable file format...”

262. Accordingly, Nassiri teaches “*using the viewer response in selecting user submission content defined in the user submission content file.*”

[28.4] for inclusion in a linear television program.

263. Nassiri discloses that its user system, where videos may be included for display, “*may have substantially any form factor [including a] set top box.*”

Ex. 1009, ¶ 16. A POSITA would have understood and it would have been obvious that set top boxes as taught by Nassiri may be coupled to a television for displaying

the videos when included in traditional television programming. As discussed above in the Claim Construction section, a POSITA would have understood that “a *linear television program*” is “traditional television programming.”

264. The '997 Patent discloses the same approach to displaying videos in linear television programming. In particular, the '997 Patent (at 5:33-36) incorporates by reference the '304 Patent, which similarly uses a set top box to display videos in linear television programming: “a *set top box* or some other gateway or device that receives and decodes the *signal so that it can be played on a television or monitor.*” Ex. 1005, 17:23-25.

265. Further, Tosh.o teaches including a short user submitted video for display in a traditional television program. Ex-1017, pp. 2-3 (user submitted “viral Internet videos,” which are “Short,” “Legal to put on TV,” and “Good quality” are “judged” and “chosen vides end up cleared for the broadcast” on Comedy Central’s television program Tosh.o, which runs on “Wednesday at 10:30 p.m., Eastern and Pacific times.”)

266. Therefore, Nassiri using a set top box to display the selected (most liked) video in combination with Tosh.o’s teaching of including selected popular/viral videos in traditional television programming teaches that the video is selected “*for inclusion in a linear television program.*”

b) Claim 30

[30.1] The computer storage medium of claim 23 wherein the program further includes instructions that when executed by data processing apparatus cause the data processing apparatus to perform operations comprising:

267. Nassiri teaches limitation [30.1] of claim 30, as discussed with reference to the preamble of claim 20.

[30.2] transmitting content from a selected user submission content file received through the capture software executing on the external user content management server system

268. Nassiri teaches limitation [30.2] of claim 30.

269. Nassiri discloses that a “selected video may be played,” and that “video may be transmitted from the video host computing system through the enterprise computing system to a user computing system,” which teaches “*transmitting content.*” Ex. 1009, ¶ 65. The video to be played, i.e., the transmitted content, is video received from a contributor using the video recorder interface, as discussed above with reference to limitation [24.1.1] (*a selected user submission content file*) and [20.2.3] (“*received through the capture software executing on the external user content management server system*”). Further, a POSITA would have understood that the transmitted content is a user submission content file, as Nassiri describes that video is transmitted from the video host computing system, which is

stored on the video host computing system in a file: “videos may generally be *transmitted* and stored in any suitable file format *video generated using the video recorder may be transmitted to the video host computing system 120 for storage in video storage* 126.” Ex. 1009, ¶¶ 15, 28.

270. Therefore, Nassiri’s description of transmitting video received from a contributor using the video recorder interface teaches “*transmitting content from a selected user submission content file received through the capture software executing on the external user content management server system.*”
[30.3] for inclusion in a television program.

271. Nassiri teaches limitation [30.3] of claim 30. As discussed above at [28.4], Nassiri in combination with Tosh.o teaches the selection of video “for inclusion in a linear television program,” which thereby discloses that the video is selected “*for inclusion in a television program*” as recited in claim 30.

c) **Claim 33**

[33.1] The system of claim 32 wherein the one or more user content management servers are further operable to transmit content from a selected user submission content file received through the content capture user interface

272. Nassiri teaches limitation [33.1] of claim 33.

273. First, Nassiri discloses that “video may be *transmitted from the video host computing system to a user computing system...*” Ex. 1009, ¶ 65.

274. Second, as discussed above with reference to limitations [24.1.1], [20.2.2], [20.2.3], and [20.6], Nassiri teaches that the transmitted content is a video received from a contributor using the video recorder software, and is stored as a file.

275. Thus, Nassiri's teachings of video content received from a contributor stored as a file, which is transmitted to a user computing system, teaches "*the one or more user content management servers are further operable to transmit content from a selected user submission content file received through the content capture user interface.*"

[33.2] for inclusion in a linear television program.

276. For the reasons set forth above with respect to limitation [28.4], Nassiri teaches limitation [33.2] of claim 33.

VIII. CONCLUSION

277. I hereby declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct, and that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true. I understand that willful false statements are punishable by fine or imprisonment or both. *See* 18 U.S.C. § 1001.

Date: January 25, 2017

Respectfully submitted,

Declaration of Dr. Kevin C. Almeroth Under 37 C.F.R. § 1.68 in Support of
Petition for *Inter Partes* Review of U.S. Patent No. 9,083,997



Dr. Kevin C. Almeroth